

Urban Planning & Infrastructure in Migration Contexts

IRBID SPATIAL PROFILE

Jordan



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Abbreviations

AFD	Agence française de développement (French Development Agency)	KfW	Kreditanstalt für Wiederaufbau (German Development Bank)
AIIB	Asian Infrastructure Investment Bank	LFG	Landfill Gas
ASEZA	Aqaba Special Economic Zone Authority	LLC	Limited Liability Company
BMZ	Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung (Federal Ministry for Economic Cooperation and Development)	LTRC	Land Transport Regulatory Commission
BRT	Bus Rapid Transit	MBT	Mechanical Biological Treatment
CapEx	Capital Expenditures	MLDU	Municipal Local Development Unit
CES-MED	Cleaner Energy Saving Mediterranean Cities	MoENV	Ministry of Environment
CR	Community Resilience	Mol	Ministry of Interior
CVDB	Cities and Villages Development Bank	MoLA	Ministry of Local Administration
DLS	Department of Lands and Survey	MoPIC	Ministry of Planning and International Cooperation
DoS	Department of Statistics	MoU	Memorandum of Understanding
DRR	Disaster Risk Reduction	MSW	Municipal Solid Waste
EBRD	European Bank for Reconstruction and Development	NCSCM	National Centre for Security and Crisis Management
EU	European Union	ND-GAIN	Notre Dame-Global Adaptation Index
GAM	Greater Amman Municipality	NGO	Non-Governmental Organisation
GCM	Global Compact for Migration	NRP	National Resilience Plan
GDP	Gross Domestic Product	PDTRA	Petra Development and Tourism Region Authority
GEF	Global Environment Facility	PESTEL	Political, Economic, Social, Technological, Environmental, and Legal Factors
GHG	Greenhouse Gas	PforR	Programme-for-Results
GIS	Geographic Information System	PPCR	Pilot Programme for Climate Resilience
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Corporation for International Cooperation)	PPP	Public-Private Partnership
GLDU	Governmental Local Development unit	PVC	Polyvinyl Chloride
GoJ	Government of Jordan	RGP	Regional Development Plan
GWh	Gigawatt Hours	SDC	Swiss Agency for Development and Cooperation
HUDC	Housing and Urban Development Corporation	SDG	Sustainable Development Goal
ILCA	Improving Living Conditions in disadvantaged Areas in Amman	SECAP	Sustainable Energy and Climate Action Plan
ILO	International Labour Organisation	SECO	Swiss State Secretariat for Economic Affairs
IMF	International Monetary Fund	SRF	Solid Recovered Fuel
IRC	International Rescue Committee	SuDS	Sustainable Drainage System
ISTD	Income and Sales Tax Department	SWOT	Strengths, Weaknesses, Opportunities, and Threats
ITS	Intelligent Transport Systems	UNFCCC	United Nations Framework Convention on Climate Change
JEF	Jordan Environment Fund	UN-HABITAT	United Nations Human Settlements Programme
JEPCO	Jordan Electric Power Company	UNHCR	United Nations High Commissioner for Refugees
JIC	Jordan Investment Commission	UNICEF	United Nations Children's Fund
JOD	Jordanian Dinar	UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
JORISS	Information System for Jordan Response Platform for the Syria Crisis	USAID	United States Agency for International Development
JREEEF	Jordan Renewable Energy and Energy Efficiency Fund	USD	United States Dollar
JRP	Jordan Response Plan	WAJ	Water Authority of Jordan
JVA	Jordan Valley Authority	WASH	Water, Sanitation, and Hygiene
KAP	King Abdullah Park	WFP	World Food Programme
		WSUD	Water-Sensitive Urban Design
		WWTP	Wastewater Treatment Plant
		3RP	Regional Refugee and Resilience Plan

Definition of Terminology

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 Irbid Municipality administrative area throughout the spatial profile.

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

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

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Executive Summary

This document is the product of intensive profiling work done for Irbid. This profile follows a hierarchical scalar approach, starting from the national level and ending at the neighbourhood 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. Enormous 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 neighbourhood level with the aim of identifying the key challenges, opportunities,

and needed investments. 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:

Zooming in to Irbid's Governorate, this profile has analysed 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, housing, and the local economic activities. It was found that Irbid Governorate's administrative boundaries have had a few changes over the past 30 years. Currently, it consists of nine Liwas, and 14 municipalities. The administrative boundaries are outlined by the Ministry of Interior (MoI) and include the Liwas, which are under the administration of the Irbid's Governorate. While the municipalities are under the administration of the Ministry of Local Administration (MoLA). However, for real estate services and land plotting purposes, the Department of Land and Survey (DoLS) divides the governorate into eight directorates, 187 villages, and 2,009 basins. Accordingly, all these administrative boundaries are not aligned, impacting the decision-making processes as well as the planning activities within the governorate.

Geographically, the governorate is located within the northern region of Jordan and is considered the main hub of the north. It has two direct land border crossings with Syria and Palestine in addition to a well-connected street network with the adjacent governorates of Jerash, Ajloun, and Mafrq. As of 2020, Irbid is the second most populated governorate after Amman, whereby it constitutes 18.5% of Jordan's total population and has the highest population density in Jordan. With more than 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. As a result of being a vital hub, the governorate has accommodated some development and planning programmes, such as Irbid Vision 2030 and USAID-CITIES Programme, amongst others.

The profound history of human settlements in Irbid Governorate is largely associated with internal and external movements. Accordingly, this has made Irbid the third most urbanised governorate, with 92.3% of the population living in urban areas. Moreover, as of 2015, the governorate hosted around 792,924 refugees, including Syrians, Palestinians, and Iraqis. The refugees vary in terms of location of residence across the governorate based on their financial abilities and the economic sectors that they are active in, but most of them are concentrated within GIM. There are three Palestinian refugee camps within Irbid Governorate and no Syrian refugee camps. Syrian refugees in the governorate live alongside the host community. The eastern regions of the governorate are where most Syrians are located due to the spatial proximity to Dara'a and to Al Hasan Industrial Estate in the east of the governorate. Meanwhile, Iraqi refugees are predominantly located in urban centres of Irbid Qasaba due to the availability of infrastructure services. Additionally, regarding infrastructure access in the governorate, most of the urban areas within the governorate are adequately supplied with water and electricity, while several areas are not connected to the sewerage network. Nonetheless, a set of projects have been proposed to improve the water, sewerage, and wastewater provisions across the governorate. As for the governorate land use, the majority of the land cover is considered green, with 39% of the land use within the governorate being classified as agricultural areas, followed by planned areas at 15%. Additionally, affordable housing is limited and has become a critical issue due to inflation in land, construction, and energy prices.

City Level:

This section looks at the administration 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 Irbid city.

The decision to create the Greater Irbid Municipality (GIM) was announced in 2001 when 16-adjacent areas were merged into Irbid Municipality. This resulted in the formation of 23 districts with an area of 356 km², accounting for 22.7% of Irbid Governorate's area. GIM controls all services provided to all the societal segments, including roads maintenance, street-

lighting, solid waste management, building approvals, tax collections, and others. As for the two Palestinian refugee camps within GIM, the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) is responsible for managing the solid waste collection within the Palestinian camps, as well as providing maintenance for roads, sewage, water, and electricity networks.

As of 2015, GIM accommodated approximately 52% of the governorate's population. This is largely due to the influx of refugees, whereby 36% of its population are non-Jordanians. In return, the demographic dependency of GIM has reached 66.7%, which is higher than the governorate rate of 66.4% and the national rate of 61.4%. Additionally, the two Palestinian refugee camps managed by UNRWA host about 55,916 refugees, which suffer from weak infrastructure, hygiene, health, and education services. As for the Syrian refugees, they are mainly urban refugees who live in different residential neighbourhoods within GIM.

The urban growth of the city of Irbid has been associated with various human movements from those seeking better economic opportunities or a safe refuge. This has profoundly shaped the urban characteristics of the city, transforming it from a village to a medium-sized city. As a result, the planned areas are scattered, and, in order to provide municipal services to residents, GIM has to follow such development patterns. Therefore, planning is practiced as a reactive measure at the municipality and not as a proactive one, whereby planning follows the actual urban growth in the city.

Within GIM, the majority of land is privately owned; GIM owns only 30 km² of land within its boundaries, while residential land use comprises the highest percentage of the planned area, at 87.9%. Green and open spaces, on the other hand, constitute around 1.2% of planned areas. Industrial land uses also remain low within the municipality, constituting 0.7% of land use. It is worth mentioning that commercial land use in GIM follows the street network, specifically main roads.

GIM has various active economic sectors, including commercial and retail, education, industry, agriculture, tourism, and home-based businesses. These sectors have been further spatially analysed throughout this profile. Being strategically located at the centre of Irbid Governorate, GIM has been developing a ring road project, in addition to its privately-owned bus networks

that are regulated by the Land Transport Regulatory Commission (LTRC), which regulates the routes in and out of the city. 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 GIM are well connected to basic services' networks, including water, electricity, sewerage, solid waste management, and telecommunication.

Accessibility to public facilities include healthcare, commercial, educational, and recreational facilities. It is worth noting that accessibility in this section was studied spatially, where good accessibility meant the ability to access these facilities within 15- or 30-minutes walking distance by the residents. The quality of these facilities was acquired from the different stakeholders and are presented in the Stakeholder Engagement Section. It was found that 64.2% of GIM's population have access to public hospitals and public health centres within a 15-minute walking distance, while 95.2% have access within a 30-minute walking distance. Additionally, almost the whole population is served with commercial facilities within a 30-minute walking distance. Also, GIM is well served with public schools spatially. However, recreational facilities are very limited, and the minimal availability of public parks is considered a challenge. There are 18 public parks, which accounts for 1.4% of GIM's total area.

Regarding municipal finance, in 2020 GIM ranked the second highest first category municipality in self-generated revenues. GIM has multiple self-generated revenue sources, including taxes and fees, financial investments, interest rates, rent, central government grants, grants from foreign partners, licensing, and fees. It is worth mentioning that GIM's self-revenues increased after the Syrian crisis in 2011 and reached its peak of over 40 million JOD in 2015. However, at the same time, the increased pressure on municipal services due to the Syrian crises has impacted GIM's financial stability and the structure of the expenditures in the city. In 2020, the highest percentage of expenditures continued to be wages and labour. This is followed by other expenditures, with operating expenditures being allocated the second highest amount.

Accordingly, based on the findings of this spatial profile, five districts were found to have a high refugee presence and to lack or have weak access to infrastructure networks, public facilities, and public transport. To conclude this section, and in order to pick three districts out of the five for further analysis, an evaluation matrix was done in cooperation with GIM representatives. The matrix included scoring the five districts based on the aforementioned criteria, where the Al Naser, Al Sarih, and Huwwara Districts had the highest scores.

Neighbourhood Level:

At the neighbourhood level, three neighbourhoods were selected from the chosen districts, based on the same criteria. These neighbourhoods were analysed more closely, with each being found to represent a different typology; The Al Ouda Neighbourhood represents the typology of a dense neighbourhood with overloaded infrastructure networks, the Al Basateen Neighbourhood represents the typology of a neighbourhood that lacks access to public transportation and needs road construction, and the Al Afrah Neighbourhood represents the typology of a neighbourhood that lacks access to public facilities and public transportation, and needs infrastructure networks and road maintenance.

After analysing these neighbourhoods, a validation workshop was held to validate the profile's findings and to select the pilot neighbourhood for the next phase of the project. As a result, the Al Afrah Neighbourhood was chosen. Accordingly, a validation workshop with the residents of the Al Afrah Neighbourhood was conducted, which aimed to inform the residents about the UPIMC Programme and its objectives, to provide an overview of the developed neighbourhood spatial profile that analyses the existing urban situation, as well as to obtain their perspectives on the identified challenges and opportunities regarding the neighbourhoods' infrastructure, urban environment, transportation, and public facilities. Additionally, during this workshop, the residents of the Al Afrah Neighbourhood highlighted the needs and priorities of their neighbourhood.

Based on the spatial analysis and the results of the validation workshop with the neighbourhood's residents, the identified challenges and the needed interventions at Al Afrah neighbourhood in relation to the SDGs, are as follows:



SDG 3: Good Health and Well Being

The analysis revealed that there is a lack of access to health care facilities within a 5- and 15-minute walking distance at the Al Afrah neighbourhood. This was validated by the neighbourhood residents.

Accordingly, **the needed intervention** is to construct a comprehensive health centre within the neighbourhood that includes a 24-hour emergency centre.



SDG 6: Clean Water and Sanitation

Residents described the water service as weak, uneven, and limited. They also explained that the sanitation network needs regular maintenance. This is aligned with the capacity analysis conducted that revealed that the water and sewerage networks within the neighbourhood are overloaded.

Therefore, **the needed intervention** is to upgrade the water and sewerage networks to accommodate the increase in population.



SDG 9: Industry and Infrastructure

The residents mentioned the need for road maintenance, installing speed bumps, adding pedestrian crossings, and enhancing the street-lighting in general. The field visits conducted by the UN-Habitat team confirmed that the roads need rehabilitation and more lighting. Furthermore, the residents also mentioned they suffer from poor storm-water drainage. Accordingly, **the needed intervention** is to rehabilitate the road infrastructure and to add more lighting poles at the neighbourhood. There is additionally a need to provide periodic maintenance to the storm-water drainage system and relocate the drains based on the proper levels.



SDG 11: Sustainable Cities and Communities

The analysis revealed the limited commercial areas within the neighbourhood, which was further emphasised by the residents. Additionally, they mentioned the lack of public recreational facilities in the neighbourhood.

Therefore, **the needed interventions** are to encourage diversity in commercial facilities, a nursery, and a capacity building training centre. Regarding the public recreational facilities, **the needed interventions** include creating more secured play areas, parks, and green open spaces, adding more lighting poles, shaded seating areas, and a bazar.

As for transportation, the analysis showed that the neighbourhood residents have no access to public transport means within 5- and 15-minutes walking distances. Moreover, residents highlighted the need for public transport stops and routes, and that taxis refuse to take rides within, nor to and from the neighbourhood because of its deteriorated roads. They also highlighted the lack of a pedestrian bridge or tunnel on the main street (Al Sarih Street), which threatens their safety. The **needed interventions** in this regard are to extend a public transport route into the neighbourhood and to add a fixed stop at the central area of the neighbourhood. Additionally, a pedestrian bridge/tunnel on the main street is highly necessary.

Furthermore, the unequal distribution of janitors and waste containers was highlighted as a challenge concerning solid waste management in the neighbourhood. Accordingly, **the needed intervention**, is to add waste containers and assign more janitors to serve the neighbourhood equally and efficiently.

Another **highlighted need** is the general beautification of the neighbourhood, where residents suggested increasing the green elements by adding trees and utilizing rooftops and vacant lots for urban agriculture. They also suggested relocating cow and sheep farms outside of the neighbourhood, and providing a solution for stray dogs.

Introduction

This document is the product of intensive profiling work held by the UPIMC team to fulfil the first component of the project. It is a stand-alone document, yet it is important to be considered while reading the action plans and prioritised interventions which will be produced in the second stage of the project's life cycle. The profile has a hierarchical scalar approach, starting from the national level and ending with the local/neighbourhood level. The formulation of the profile ensured the interconnectivity between each scale, to allow a two-way reading mechanism of the document. Each section of the profile combines a set of cartographic interpretations of the situation to provide a spatial dimension of the narrative.

About UN-HABITAT

The United Nations Human Settlements Programme, UN-Habitat, is the United Nations agency working for a better urban future. It is mandated by the UN General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all. UN-Habitat promotes transformative change in cities and human settlements through knowledge, policy advice, technical assistance and collaborative action to leave no one and no place behind. UN-Habitat focuses its efforts to reduce spatial inequality and poverty in communities across the urban-rural continuum, enhance shared prosperity for cities and regions, strengthen climate action and improve the urban environment, and Effective urban crises prevention and response.

Humanitarian-Development Nexus

Today, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050. Such a high rate of urbanisation adds to the increasing pressures on cities and urban settings to absorb the demands of its population. In parallel, urban areas have been the main destination of the displaced, with over 60 per cent of refugees and a majority (80 per cent) of internally displaced persons (IDPs) now living in urban environments, mainly seeking socio-economic opportunities and safe places to reside. Such a situation has resulted in an unprecedented increase in the cost and duration of humanitarian assistance, especially with the protracted nature of crises and scarce development actions. Such a status necessitates stronger connectivity between humanitarian and

development efforts, especially since the 2030 Agenda and the Sustainable Development Goals (SDGs) do not only aim to meet needs, but also to reduce risks and vulnerabilities, leaving no one behind.

Urban Planning and Infrastructure in Migration Contexts (UPIMC) Programme UN-Habitat is partnering with the Swiss State Secretariat for Economic Affairs (SECO) to improve access to reliable services and socio-economic opportunities for migrants and displaced populations in urban settlements. The UPIMC will support a number of municipalities that host displaced populations in developing long-term strategies that build on their resilience to face future challenges. The UPIMC aims to foster 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 implemented in three countries, namely, Cameroon, Egypt, and Jordan.

Objectives

The UPIMC aims to contribute to the continuous national and international efforts to improve access to services and socio-economic opportunities for displaced populations side by side with the citizens living in challenging situations in the selected cities. This goal will be achieved by supporting municipalities with a long-term strategic approach to improve the accessibility of public services in the migration and displacement affected neighbourhoods through bankable infrastructure investments. The adopted planning approach ensures integrating a wide spectrum of stakeholders that involve humanitarian and development actors, as well as governmental parties such as line ministries and target municipalities. Such an approach aspires to support connecting short-term humanitarian responses with long term development interventions to enable more comprehensive and inclusive interventions.

Methodology

The methodology comprised primary and secondary data collection, together with field visits and intensive consultation with local, national government actors as well as the target communities. The collected data were

triangulated with a desktop review of multiple literature sources, including academic and grey sources. A set of spatial analyses was conducted from regional to neighbourhood scales to define the major challenges and opportunities and inform the project's next steps. Finally, the profile was reviewed and validated with the primary actors in the project, including representatives from the community.

Approach

UPIMC consists of four interlinked components: (1) spatial analytics and urban profiling, (2) developing a strategic vision and scenario building, (3) defining prioritised infrastructure investments and establishing linkage to financing, and (4) contributing to knowledge exchange. In the first component, the UPIMC team developed urban profiles based on a spatially focused cross-sectoral situational analysis of urban settlements hosting displaced populations, allowing local stakeholders to get a comprehensive spatial understanding of the existing situation as a basis for decision-making, long-term urban development strategies, and infrastructure investment planning. Building on the profile developed, the second component will develop a strategic vision for urban development in selected areas in the targeted cities. Participatory approach and planning charrettes rest at the core of this process, involving critical institutional stakeholders together with representatives of civil society. The urban profiles, scenarios, and action plans from the first two components set out the rationale and evidence to support decision-makers to identify interventions for prioritised investment in municipal services that are both financially realistic and viable. The production of the third component incorporates assessing the economic, social, and environmental potentials to obtain the sustainable impact of proposed interventions. The last component will build up and foster knowledge exchange and awareness in the cities among stakeholders for the importance of good data management and urban observatory platforms for future use. Through forums and digital media, the programme will also connect cities at the national level and internationally through events and international conferences, including the Cities Investment Platform events.

Target Audience

This profile provides entry points for national and international practitioners who seek to develop long term development strategies in their cities, as well as donor organisations 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.

UPIMC Programme

By conducting activities that go beyond a pure planning stage, the Programme endeavours to support the prioritization of infrastructure investments and their linkage to financing, which will benefit migrant communities and all urban dwellers with a better quality of life and better access to economic opportunities. Accordingly, the scope of work will also ensure significant contributions to the Sustainable Development Goals (SDGs) by supporting the selected cities and neighbourhoods to become increasingly inclusive, safe, resilient, and sustainable. This will allow for the necessary shift from short term emergency interventions to long term development investments. The Programme will achieve this through the four interlinked components below:

- **Spatial Analytics and Urban Profiling**

Under the first component, this Programme will develop urban profiles based on a spatially focused cross-sectoral situational analysis of urban settlements hosting displaced populations. This allows local stakeholders to get a comprehensive spatial understanding of the existing situation as a basis for decision making on long-term urban development strategies and infrastructure investment planning. The urban profiling itself will build upon data already collected by the various actors using a participatory and area-based approach. It will develop a baseline that can be used as a consultative mechanism to support vertical and horizontal integration of stakeholder requirements including government entities at various levels and other relevant stakeholders. It will also be used to select suitable pilot areas within the cities, where more detailed scenario building will be conducted under the second component.

- **Develop a Strategic Vision and Scenario Building**

Building upon the analytical work and the recommendations for the selection of pilot areas under the first component, this component will develop strategic visioning and scenario building for urban development in selected neighbourhoods. It is based on a comprehensive planning charrette, which is highly participatory and inclusionary, involving critical institutional stakeholders together with representatives of civil society (displaced, migrants, host communities, etc.) and the private sector. Participants will provide direct inputs into the visioning process, which will facilitate discussion on strategic urban development visions, possible interventions, related individual interests, technical opportunities and/or constraints, as well as political objectives. The scenario building will be supported

by an action plan outlining what could be done, where and when. This will also unlock the next step for the clear identification of strategic infrastructure interventions and will allow for technical assessment of the intervention prioritization and its definition.

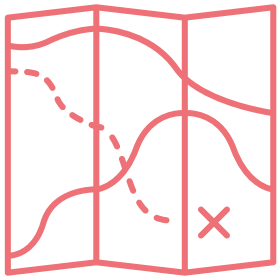
- **Define Prioritized Infrastructure Investments and Linkage to Financing**

The urban profiles, scenarios, and action plans from the first and second components set out the rationale and evidence to support decision-makers in identifying interventions for prioritized investment in municipal services that are both financially realistic and viable. It will aid in prioritizing investments through an assessment of the economic, social, and environmental potential as well as of the sustainable impact of the proposed interventions on the city and its migrant communities. The technical and financial feasibility of the prioritized interventions will further be detailed through technical assistance and consultative bilateral engagements with national and local authorities, donors, and development banks. As well as through analysing city budgets, capital spend potential, as well as investment platforms, such as UN-Habitat's Cities Investment Facility. The proposed prioritized infrastructure intervention and anchor points (where catalytic projects can be linked to existing city/neighbourhood priorities and policies for bank ability) will then be presented and validated in a workshop with key local authority, development partners, and, where possible, the private sector. This will include work to link them to potential partners for financing and detailed pre-feasibility studies.

- **Knowledge Exchange**

This last component will build and foster knowledge exchange and awareness in the cities among stakeholders for the importance of good data management and urban observatory platforms for future use. Through forums and digital media, the Programme will also connect cities at the national and international levels through events and international conferences, including the Cities Investment Platform events. It will also make use of UN-Habitat's platforms and those of partners i.e., Cities and Migration Joint Work Programme of the Cities Alliance, share respective knowledge and experiences, as well as other examples such as UN Migration Network, UCLG or MMC.

COMPONENT #1



Spatial Analytics & Urban Profiling

Multi-Sectoral Spatial Analysis
 Profile Preparation & Pilot Area Identification

COMPONENT #2



Develop Strategic Vision & Scenario Building

Identification of potential economic opportunities
 Finalisation & dissemination of action plan

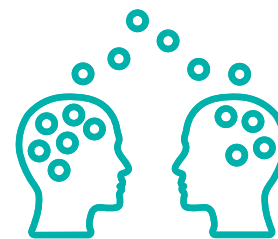
COMPONENT #3



Define Prioritized Infrastructure Investments & Linkages To Financing

Impact assessment framework of proposed infrastructure

COMPONENT #4



Knowledge Exchange & Capacity Sharing

City-to-city knowledge exchanges
 Capacity sharing sessions with local authorities to continue to monitor and guide infrastructure implementation

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.¹ It has a population of 10.5 million (2019)² which is heavily concentrated in and around the capital city of Amman. Approximately half of the urban population resides in the Amman-Russeifa-Zarqa agglomeration³, 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.⁴

Urbanisation

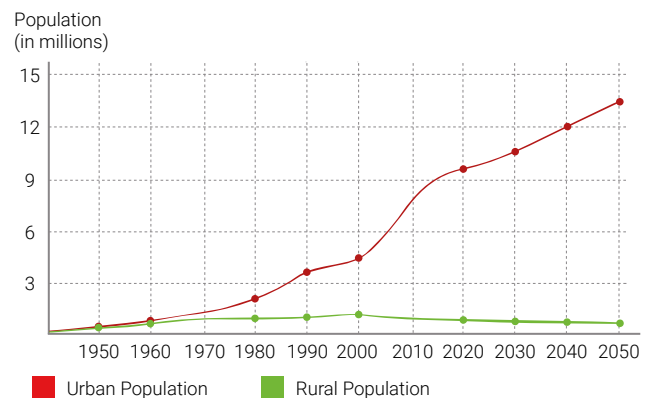
Jordan is one of the 50 most urbanised countries in the world.⁵ 90.3% of Jordan's population is living in urban areas.⁶ The country is characterized by rapid Urbanisation and urban growth, with a current annual population growth rate of 2.3% (2019) and population density of 118.9 person per square kilometre.⁷ Over the last two decades, Jordan's total built-up area has doubled, reaching 1,500 km²,⁸ with the urban built-up area amounting to 909 km².⁹ The spatial expansion of urban areas is equivalent to 1% per year, or 15 km²,¹⁰ 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.¹¹ 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.¹² The data also indicates that a majority of the population in Madaba (61%), Mafraq (75%), Jerash (59%), Ajloun (55%), Tafileh (57%), and Ma'an (60%) fall in the lowest income quantiles.¹³

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 and infrastructure provision. As cities are the main economic drivers of the country's GDP, the majority of the jobs are located in urban areas, encouraging rural-to-urban migration. In addition, 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

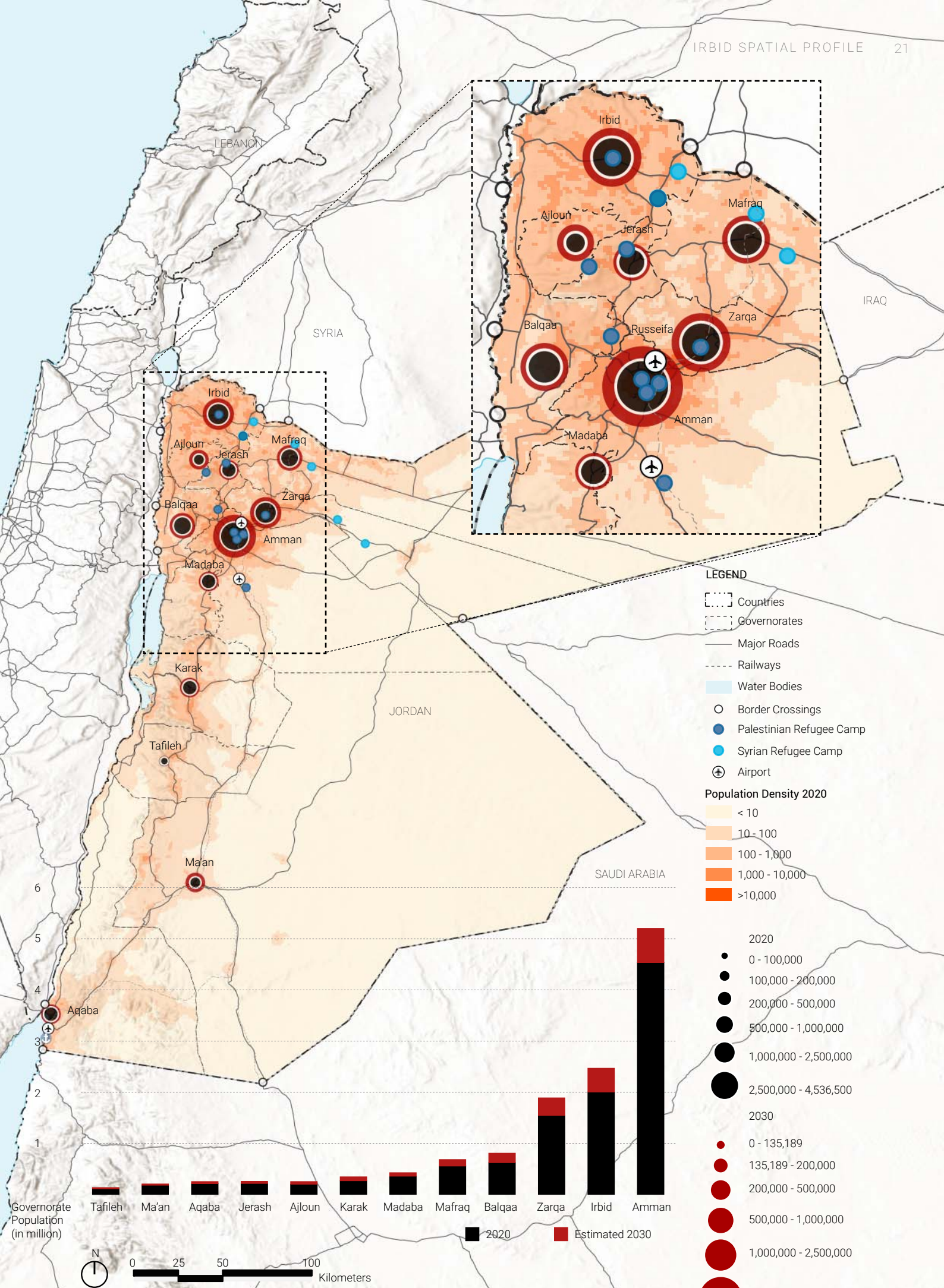


Fig. 1: The Spatial Distribution of Existing and Estimated Population in 2020 and 2030, Jordan

Source: Department of Statistics, 2021

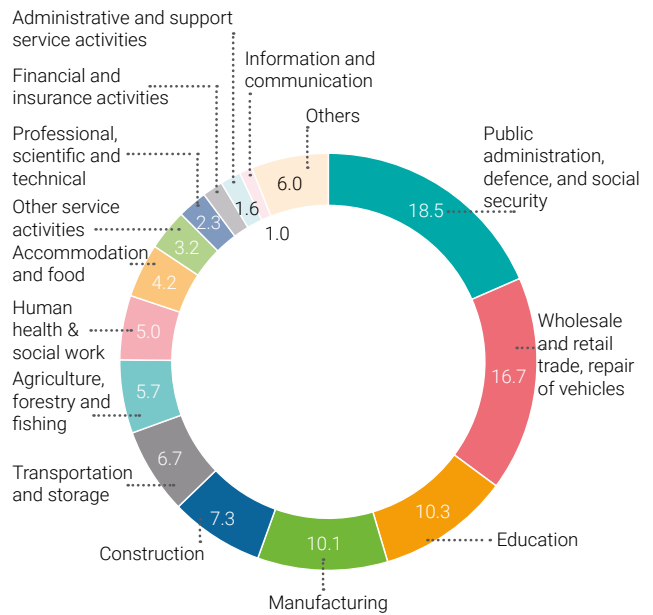
Demographics and Socio-Economic Background

Jordan's population has nearly doubled between 2004 and 2015, coinciding with the political situation in Iraq and Syria. Jordan is one of the youngest countries in the world, with around 63% of its population under the age of 30.¹⁴ This requires a long-term planning of resources to meet future needs of the growing population.

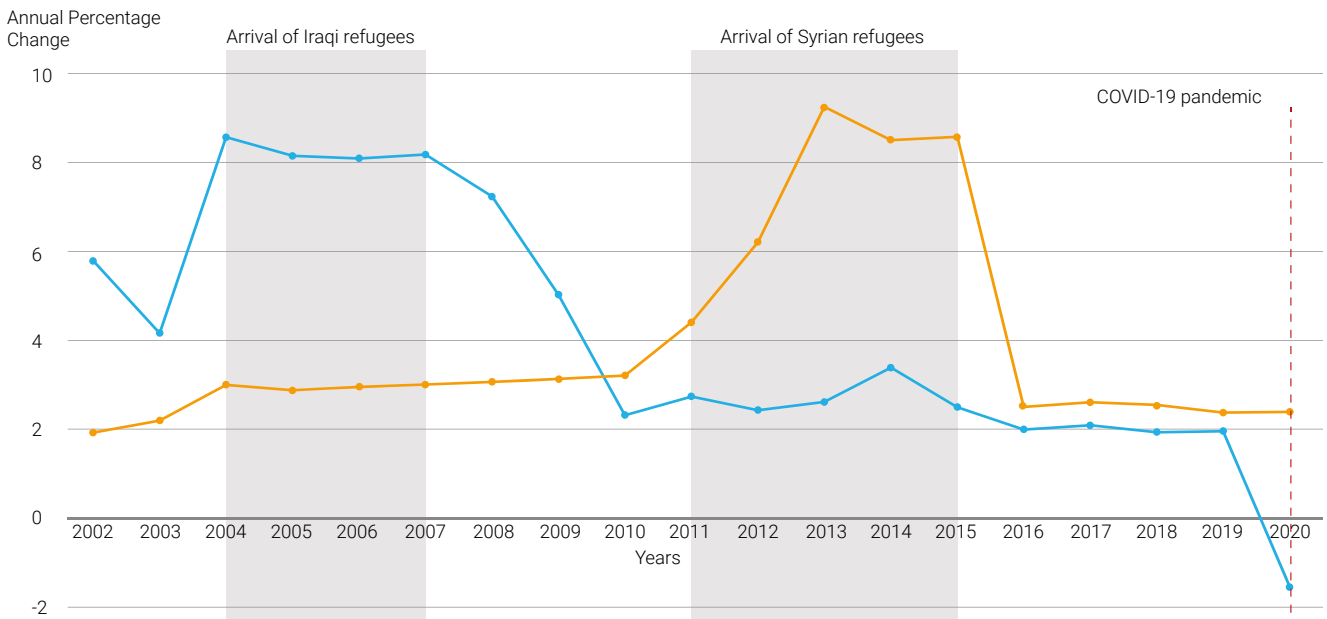
Despite the influx of several waves of refugees, Jordan has managed to keep a fair development growth rate over the past decade. Jordan has a GDP per capita (2019) of 2,994 Jordanian Dinar (USD 4,222.8)¹⁵ and an average growth rate of 4.06% per annum from 1993 until 2022.¹⁶ Annual remittances are estimated to reach USD 3.8 billion, which amounts to 10% of Jordan's GDP.¹⁷ 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.¹⁸

In terms of employment, 18.5% of the employed population work in public administration, 16.7% work in wholesale and retail trade, while 10.5% work in education. Jordan faces many economic challenges such as high unemployment rates and poverty; unemployment rates are currently at 19.3%,¹⁹ and have risen sharply over the years from 13% in 2015.²⁰ The rates increase to 43.1% among young people and 27% among women.²¹ Despite high education attainment rates, young people

in Jordan have low prospects for job opportunities. As for poverty, 14.4% of the population lives in poverty and another 18.6% are exposed to the risk of transient and seasonal poverty.²² The poverty profile of Syrian refugees coincides with pre-existing stresses among the Jordanian poor.

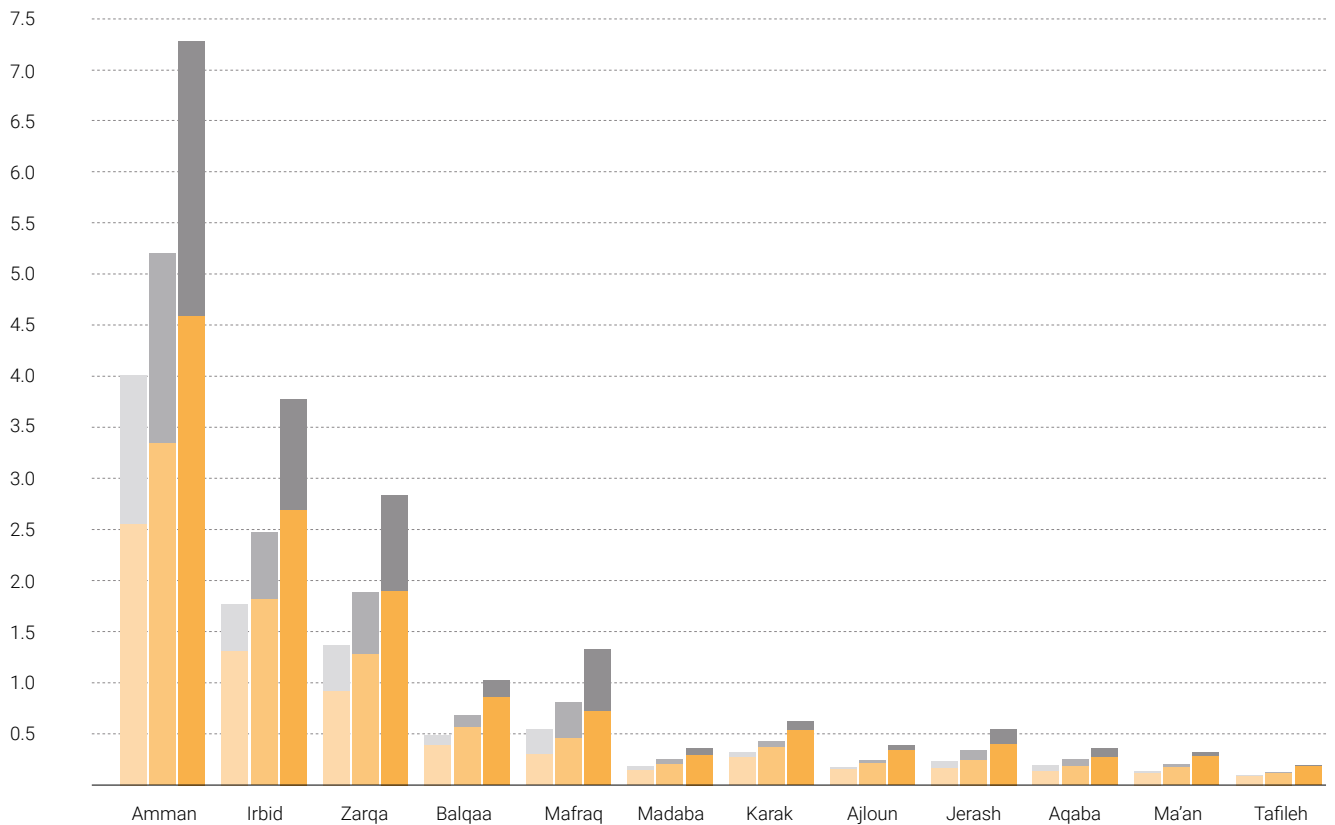


Distribution of Employed Household Individuals by Economic Activity (%)
Source: Department of Statistics, 2020



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

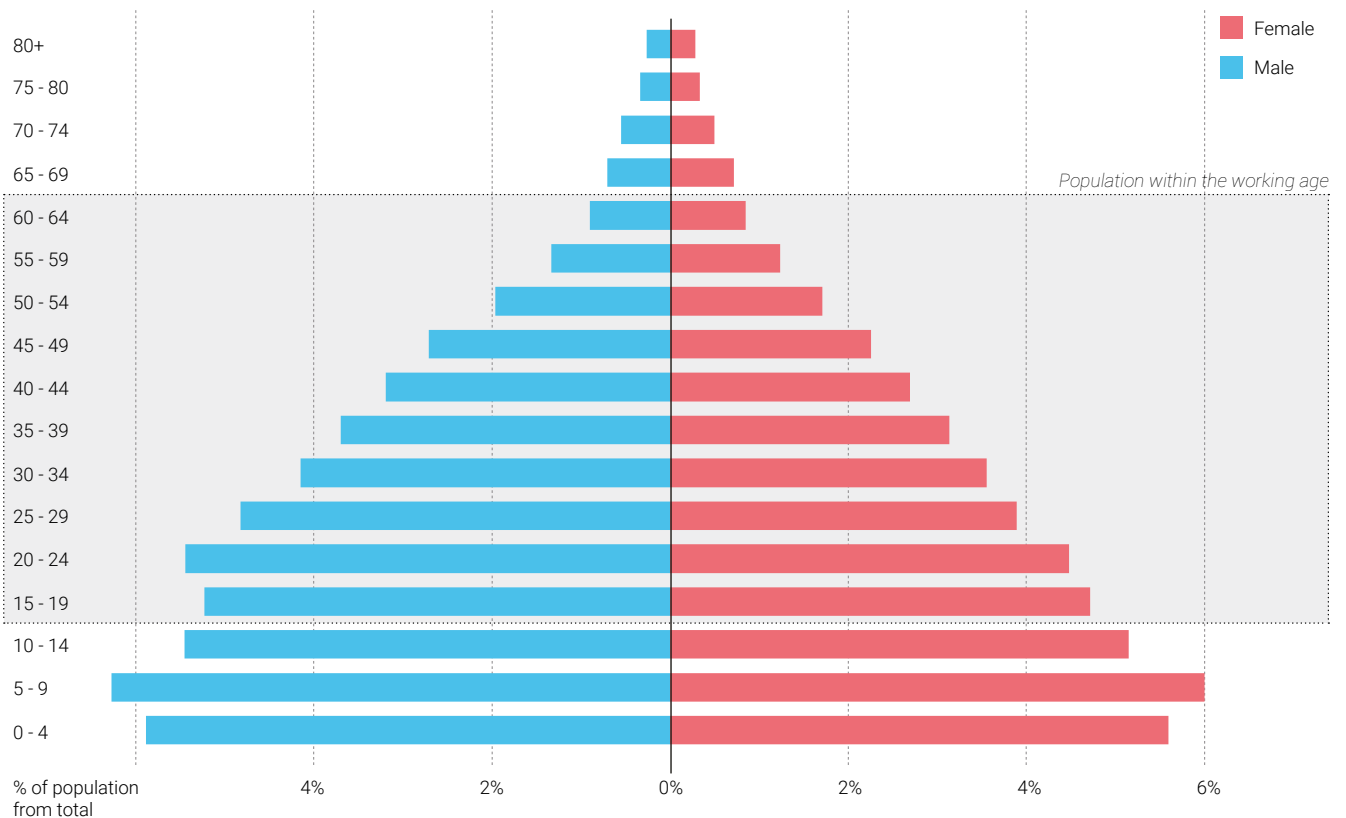
Population Change GDP Change



Governorate Actual and projected population of Jordanians and non-Jordanians.
Source: Department of Statistics, 2021

Governorate Projected Population (in million)

- Jordanians (2015)
- Jordanians (2030)
- Jordanians (2050)
- Non-Jordanians (2015)
- Non-Jordanians (2030)
- Non-Jordanians (2050)



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 his/her origin country due to the risk of serious human rights' violations and persecution.²³ 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.²⁴ 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.²⁵ Today, around 244,000 Circassian refugees live in Jordan.²⁶ Due to their assistance in the formation and development of modern Jordan, Circassian descendants 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.²⁷ 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.²⁸ During the Gulf crises in 1990-1991, an estimated one million people arrived to Jordan, including 300,000 Palestinians, who were involuntary returnees.²⁹ 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.³⁰

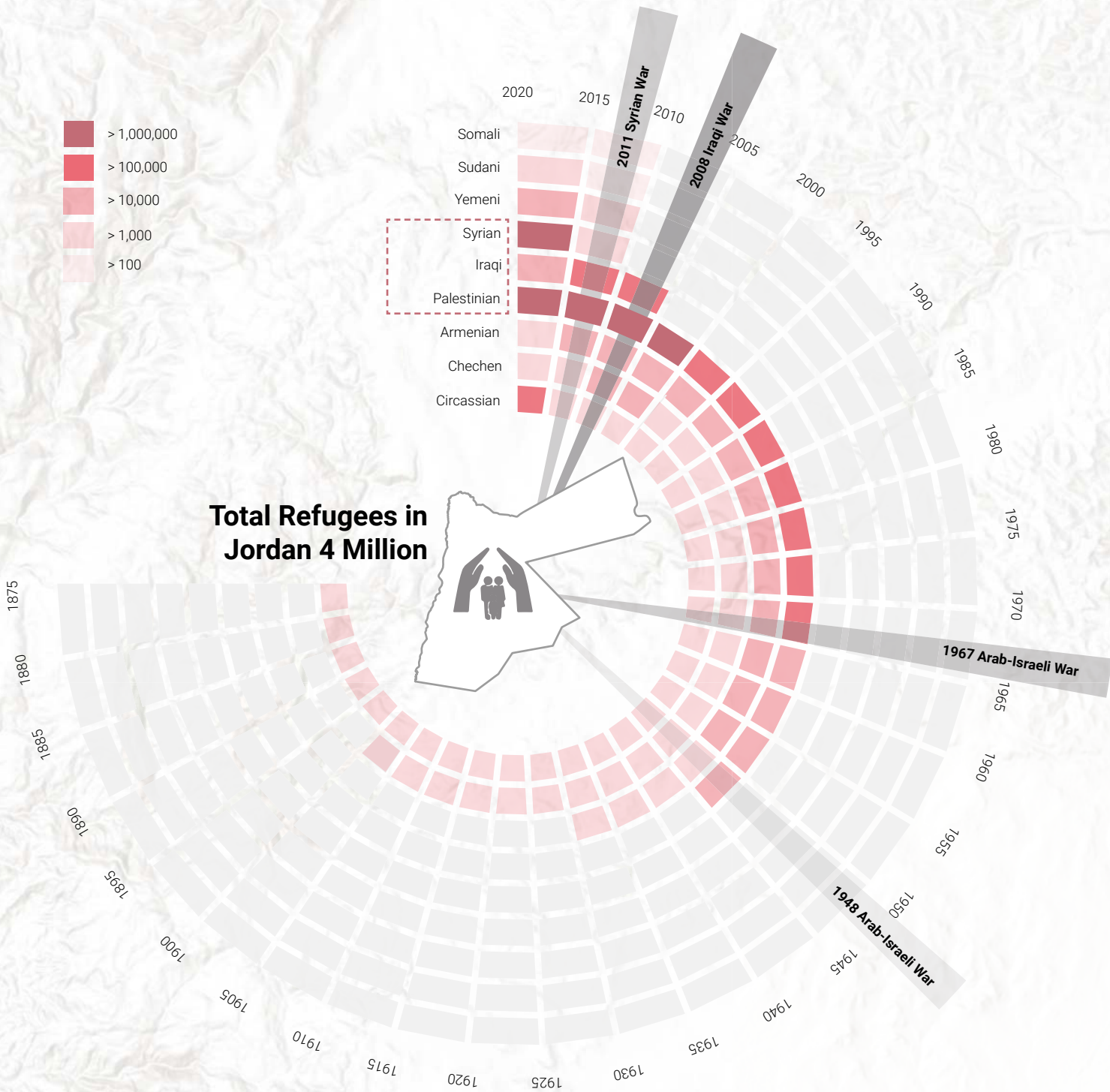
Iraqis also sought refuge in Jordan during the Gulf war, whereby an estimated 30,000 were residing in the

country.³¹ 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 refugees³², referring to their higher living conditions and their preference to reside in urban areas, such as Amman, as opposed to inside refugee camps.³³ 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.³⁴ 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.³⁵

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".³⁶ However, the term under which Syrians are registered by the UNCHR is "Persons of concern".³⁷ Syrians came to Jordan while it was already suffering from several urban challenges and put further pressure on the country's very limited resources.³⁸ 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.³⁹

According to the UNHCR, 34,000 of the registered Syrian refugees have returned home from Jordan since 2018⁴⁰ 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.⁴¹

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.



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 citizenship⁴².

1.4 M

Syrian Refugees in Jordan
 670,000 registered Syrian refugees & the total number of Syrians count up to 1.4M⁴³.

244 K

Circassian Refugees⁴⁴

67000

Iraqi Refugees⁴⁵

13000

Yemeni Refugees⁴⁶

10000

Armenian Refugees⁴⁷

6000

Sudani Refugees⁴⁸

5000

Chechen Refugees⁴⁹

>1000

Somali Refugees⁵⁰

Fig. 2: 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.⁵¹ 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.⁵²

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 Irbid, around 57% of Syrian refugee households receive wage income, while only 5% receive self-employment income. 27% 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 Irbid, around 91% 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.⁵³

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

Percentage of Syrian refugee households by forms of income.

Source: FAFO & MOPIC/The Living Conditions of Syrian Refugees in Jordan 2017-2018.

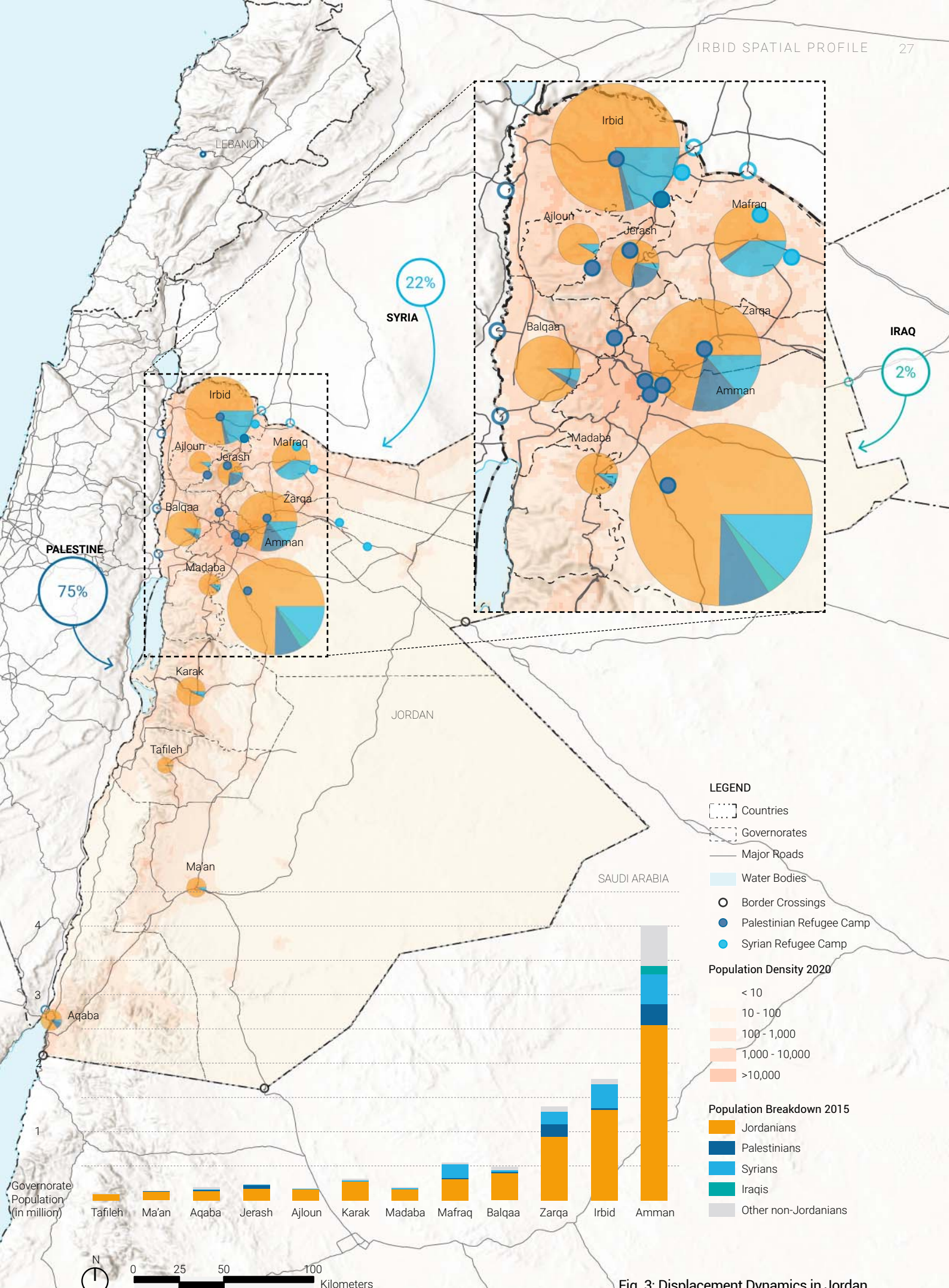


Fig. 3: Displacement Dynamics in Jordan

Source: DOS, 2015

Governance & Administration System

Jordan is transitioning from a highly centralized to a progressively de-concentrated system with more powers vested at the governorate and municipal levels.⁵⁴ Jordan is divided into twelve governorates (muhafazat),⁵⁵ 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).⁵⁶ 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.⁵⁷

The 2015 Municipalities and Decentralization Laws aim to integrate the municipalities into a general governance framework and increase accountability.^{58,59} The 12 governorates comprise of 100 municipalities.⁶⁰ All municipalities have a legal presence with financial and administrative autonomy, and are supervised by the Ministry of Local Administration (MoLA) with the exception of Greater Amman Municipality, Petra Development & Tourism Region Authority, and Aqaba Special Economic Zone.⁶¹

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.

As a result of the Municipalities and Decentralization Laws of 2015, four types of councils were created, collectively forming Jordan's system of decentralization: the local council and municipal council at the municipal level, and the executive council and governorate council

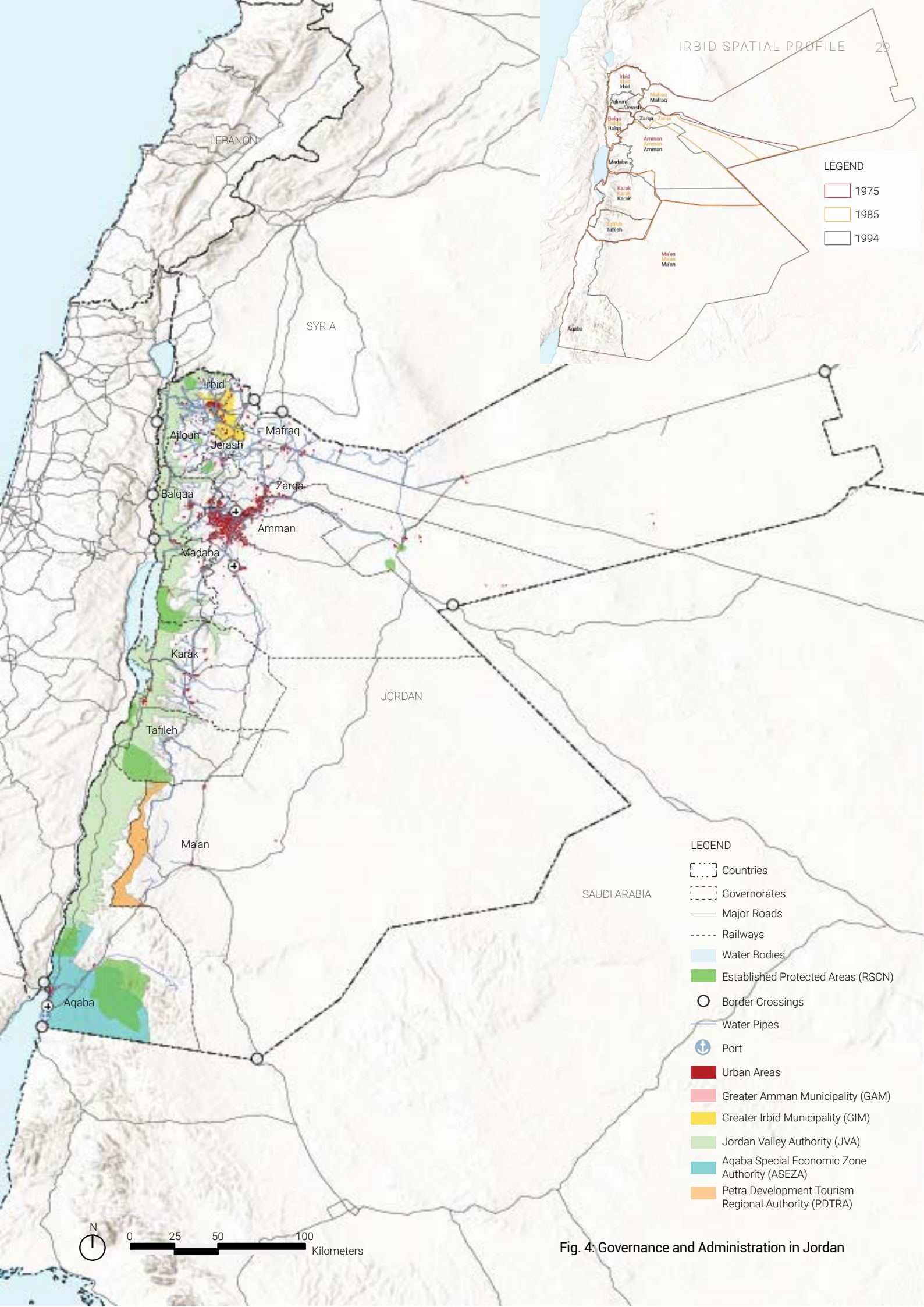
at governorate level.⁶² The local council has at least five members and represents more than 3,000 constituents, while the municipal council is formed by the heads of the local councils. The governorate council consists of 85% directly elected representatives and 15% appointed members. Through these elected governorate and local councils, a stronger accountability and transparency is expected, as well as an improved service delivery and increased community engagement.

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.⁶³ 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.⁶⁴

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.⁶⁵

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.

Each ministry plans, implements and monitors its own projects individually.⁶⁶ These plans are then integrated by Ministry of Planning and International Cooperation (MoPIC) into one coherent document.⁶⁷ While this approach provides a responsibility to MoPIC in terms of coordination, the lack of national, planning and regional documents hinders the process of prioritizing projects based on guiding documents.⁶⁸



LEGEND

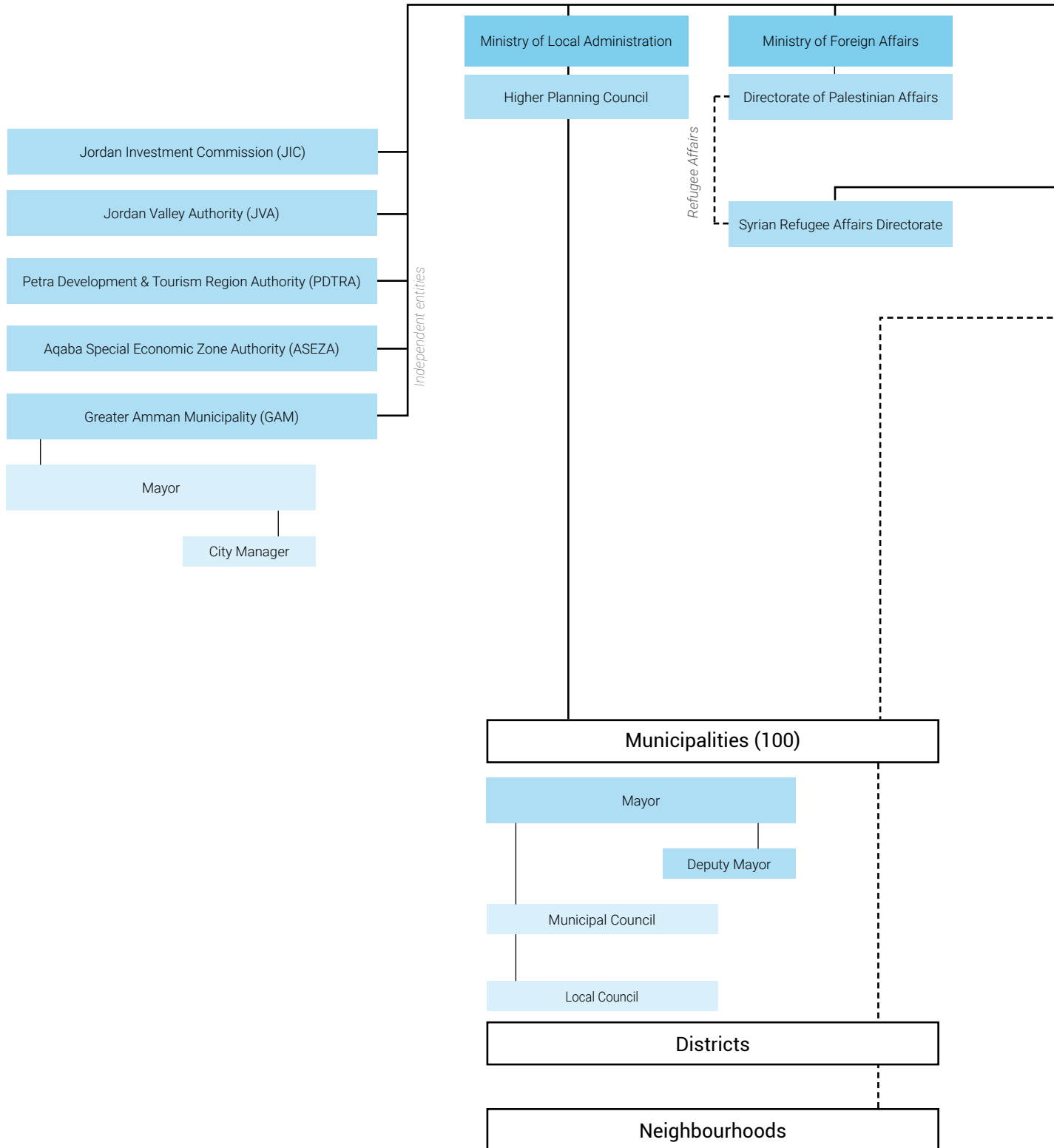
- 1975
- 1985
- 1994

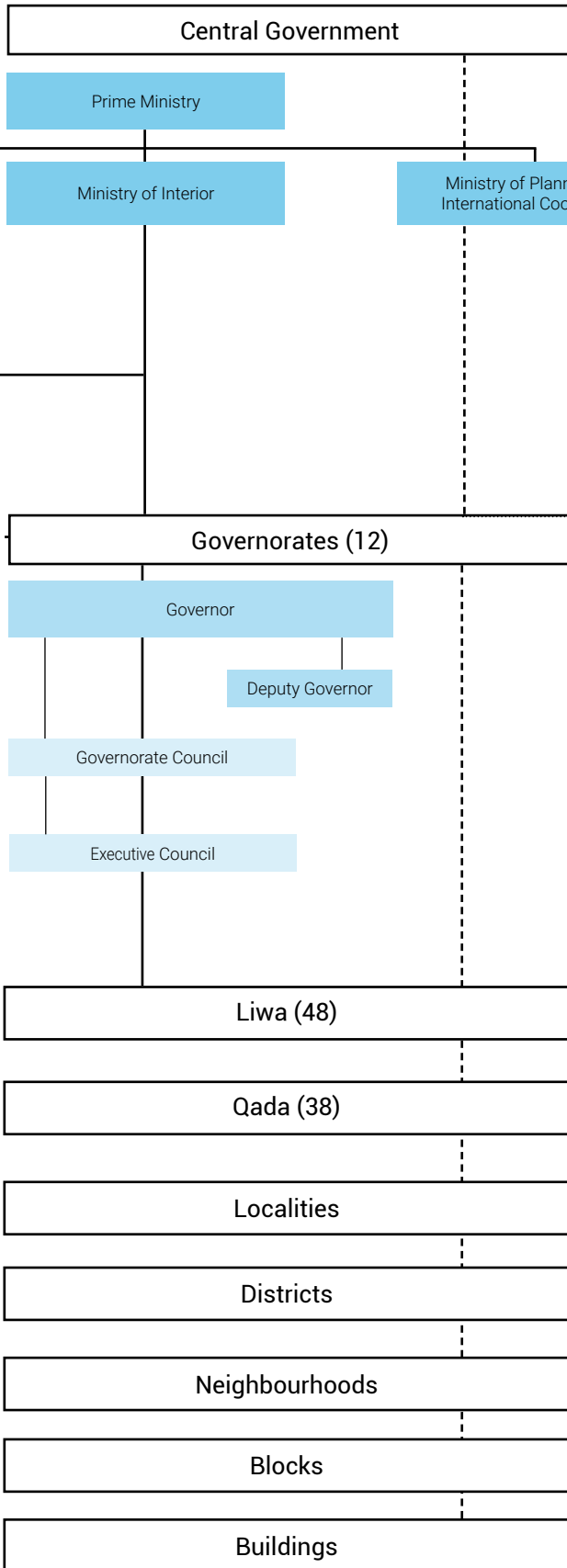
LEGEND

- Countries
- Governorates
- Major Roads
- Railways
- Water Bodies
- Established Protected Areas (RSCN)
- Border Crossings
- Water Pipes
- Port
- Urban Areas
- Greater Amman Municipality (GAM)
- Greater Irbid Municipality (GIM)
- Jordan Valley Authority (JVA)
- Aqaba Special Economic Zone Authority (ASEZA)
- Petra Development Tourism Regional Authority (PDTRA)

0 25 50 100 Kilometers

Fig. 4. Governance and Administration in Jordan

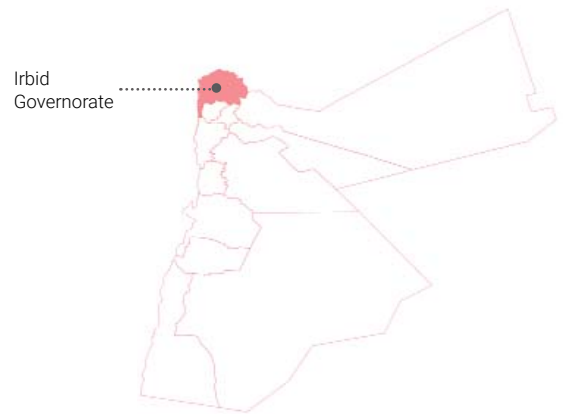




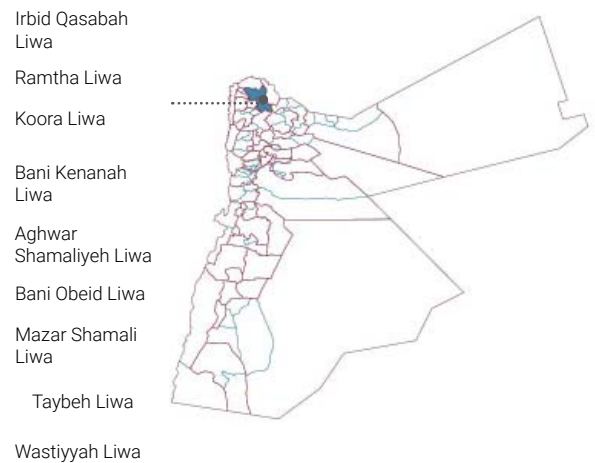
National boundary



Governorate boundaries



Liwa divisions



National Planning Context

Historical Background

Until 1946, Jordan, in its planning efforts, relied on assistance from the gulf states and private sector investment.⁶⁹ 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.⁷⁰ 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.⁷¹

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.⁷² 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 1963.⁷³ 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.⁷⁴ This law remains temporary, with minimal attempts to update it until now.

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 water 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.

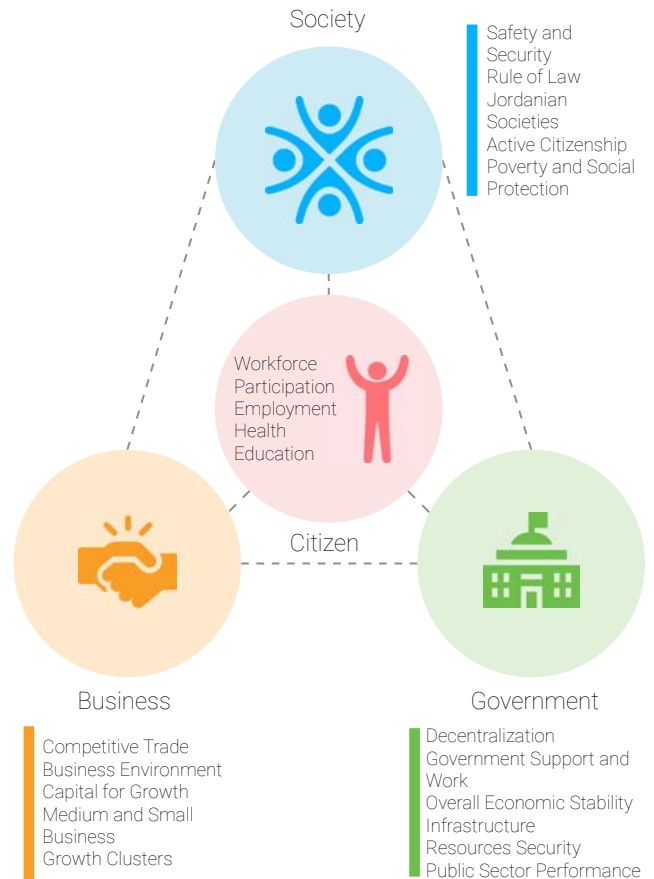
Key Plans, Policies and Strategies

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 2025⁷⁵

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
	Natural Disaster Risk Reduction Strategy	Jordan Economic Growth Plan	Regional Refugee & Resilience Plan
		Jordan Response Plan	
		National Green Growth Plan	The Jordan Compact & CGM
	Jordan National Urban Policy (under formulation)		
Regional	Irbid 2030: Regional Growth Plan		
		Local Development Plans	
City	Irbid 2030: Greater Irbid Area Plan		
	Local Strategic Plan for GIM 2019-2023		
	Sustainable Energy and Climate Action Plan		

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

National Resilience Plan⁷⁶

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)⁷⁷

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 Plan⁷⁸

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



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



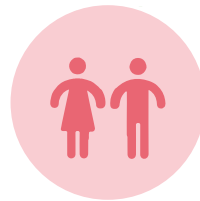
41,000 households

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



Water Supply

for around 77,000 refugees in Zaatari Refugee Camp is improved through integration of water services



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

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 water and sanitation systems. At the local level, the JRP assists municipalities in providing access 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 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 Compact⁷⁹

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 Migration⁸⁰

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 policies⁸¹.

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.⁸² Competition for urban land has led to an increase in land prices, which are among the highest in the region.⁸³ Despite this large land area, relatively little is found inside urban areas, and even less that is unbuilt.⁸⁴ 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.⁸⁵ As a result, the remaining large tracts of land are privately owned and found on the outskirts of urban areas.⁸⁶

Jordan has a mixed legal system based on civil law, Shari'a law (Islamic law) and customary law.⁸⁷ The legal, institutional and administration frameworks related to land tenure reflects a gradual movement towards land privatization.⁸⁸ 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.⁸⁹

The current land ownership in Jordan falls under three categories: privately owned land that is registered and documented; tribal land which had been historically distributed by tribal leaders; and state land which provides free access to all resources to the land owned by the state.⁹⁰ While private land, which is represented by 800,000 titles, are registered, state land, accounting for 80% of the country's total lands, are poorly defined and documented.⁹¹ Customary rights on these lands are unclear and can lead to large-scale tenure insecurity.⁹²

In urban areas, most of the land is privately owned land, and is transacted through sale or lease.⁹³ Most of the privately owned land in urban areas are inherited as opposed to outright land purchase.⁹⁴ State-owned land is authorised for lease or purchase only for Jordanian nationals.⁹⁵ 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.⁹⁶

The elimination of tribal ownership has led to lack of incentives to encourage Bedouins and pastoralists to maintain and conserve the resources and rangelands.⁹⁷ Informal sale of former tribal lands in both urban and rural areas still occurs.⁹⁸ Considering that the basis for security land rights is through land registration, the transactions of these lands is not considered valid.⁹⁹

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 water sources.¹⁰⁰ 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.¹⁰¹ All land transactions must be registered with DLS, even in special economic development areas like JVA and ASEZA.¹⁰² The cadastral database is digitalized and keeps records of all procedures and documents, including land registers and cadastral plans.¹⁰³ DLS has land registration directorates and registration offices in all governorates and sub-governorates.¹⁰⁴ 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.¹⁰⁵ DLS collects sales taxes and registration fees from the governorate.¹⁰⁶

Despite these well-established land administration processes and clear mandates, there are various challenges.¹⁰⁷ Most urban land is privately owned, while most non-urban land is treasury (state) land.¹⁰⁸ 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.¹⁰⁹

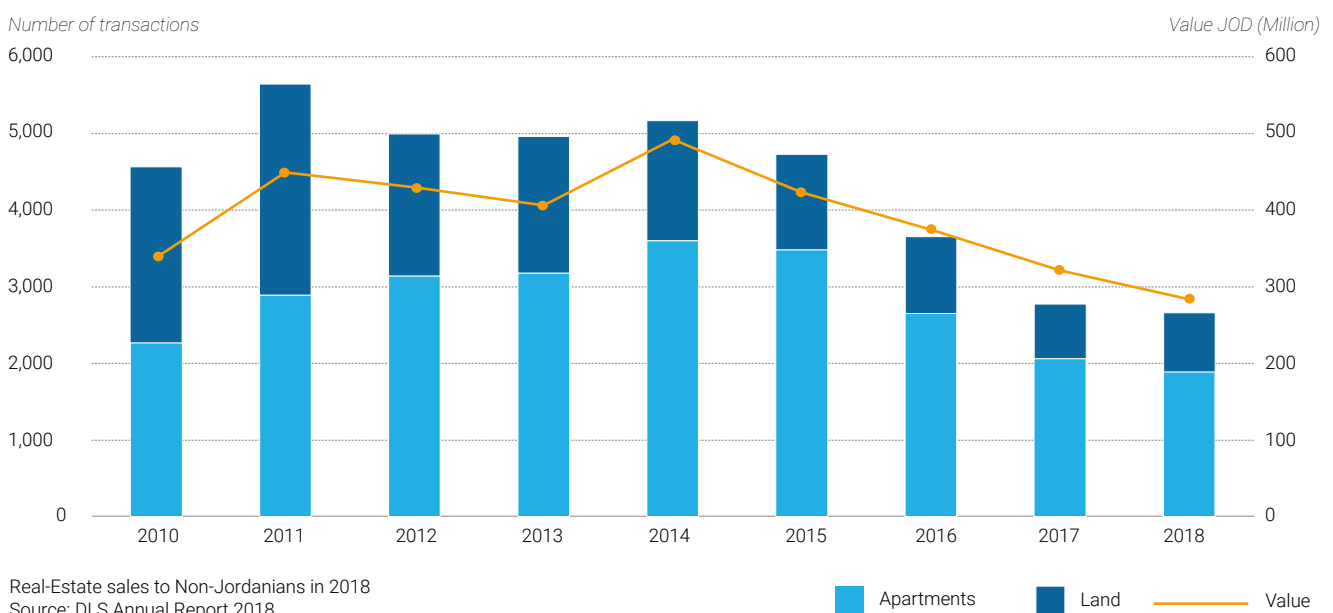
During the land market bubble between 2005 and 2008, land speculation raised land prices by a factor of 10.¹¹⁰ This was influenced by the population influx of Iraqi and Palestinian refugees, scarcity of land, and higher land value assessments by the DLS.¹¹¹ While the land market stabilized in the intervening years, the influx of Syrian refugees has created a high demand for rental housing. Rental costs are highest in Irbid, East Amman and Madaba.¹¹²

Women’s rights to land are enshrined within the Constitution, the legal framework, within the Shari’a law and even the customary law.¹¹³ There are no legal restrictions on the ownership or purchase/sale of land by women both as individuals and jointly through marriage.¹¹⁴ 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.¹¹⁵ Women with higher education are also more likely to own land or house titles.¹¹⁶

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.¹¹⁷ 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.¹¹⁸ 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.¹¹⁹

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.¹²⁰

As for refugees, they are the most tenure insecure in Jordan, particularly Syrian refugees.¹²¹ A quarter of refugee families are female-headed households.¹²² Many households rent houses without basic rental agreements, leaving families vulnerable to forced eviction and further displacement.¹²³ Furthermore, one in ten refugees is living in an informal shelter such as a tent, mud hut or caravan.¹²⁴ Almost half of refugees are living in shelters whose condition is classified as undignified.¹²⁵ There are efforts to improve tenure security through programmes that provide rent-free accommodation to families most in need by upgrading uninhabitable, substandard buildings.¹²⁶ 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.¹²⁷ As demand for dignified housing increases, tensions between refugees and host communities are likely to increase.¹²⁸



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.¹²⁹

However, municipalities are, for the most part, institutionally and financially weak.¹³⁰ 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,¹³¹ and further exacerbated because of the state-imposed privatization of urban services.¹³² As a result, many responsibilities and financial resources remain vested in centrally-controlled agencies.¹³³ This renders municipalities subject to strict centralized control over their budgets.¹³⁴

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.¹³⁵ Municipal expenditure for all entities including (GAM, ASEZA, PDTRA and JVA) relative to GDP is 6.2%.¹³⁶ The system has been unstable over the past few years due to other commitments from the central government.¹³⁷ 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.¹³⁸

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,¹³⁹ 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.¹⁴⁰

Figures show that approximately 43% of Jordan's population work as civil servants,¹⁴¹ resulting in low economic dynamics within the municipalities.¹⁴² 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.¹⁴³

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 2020-2022.¹⁴⁴

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

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.¹⁴⁵ 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.¹⁴⁶ The cost estimates of these services in 2020, as well as the forecasts for 2021 and 2022, are reported in the table 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

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).¹⁴⁷

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.¹⁴⁸ CVDB reserves the right to intercept fiscal transfers as a mitigation against the risk it is exposed.¹⁴⁹

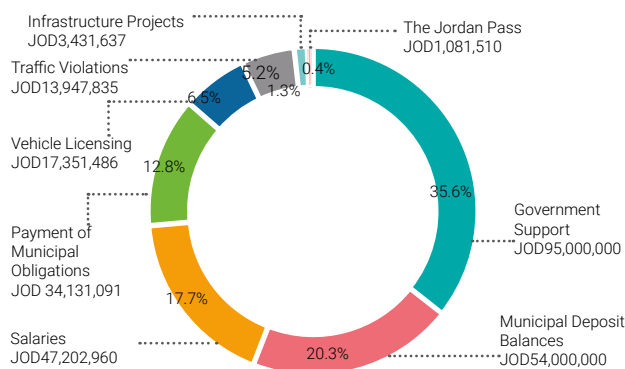
In terms of investments, direct investments by municipalities are limited, with the majority of investments within municipal areas coming from line ministries through their de-concentrated units at governorate level. However, consultations with municipalities are often limited, resulting in limited coordination for an integrated urban approach.¹⁵⁰ 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.¹⁵¹

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).¹⁵² 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.¹⁵³

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.¹⁵⁴

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.¹⁵⁵

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.¹⁵⁶

Local Economy

The informal sector constitutes 26% of the Jordanian

economy, limiting municipal revenue collection and hindering local economic development.¹⁵⁷ 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.¹⁵⁸ 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.¹⁵⁹ Moreover, investments in the Kingdom are expected to reach around \$8.9 billion, comprising 18.7% of the GDP in 2022.¹⁶⁰

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.¹⁶¹ 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.¹⁶²

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

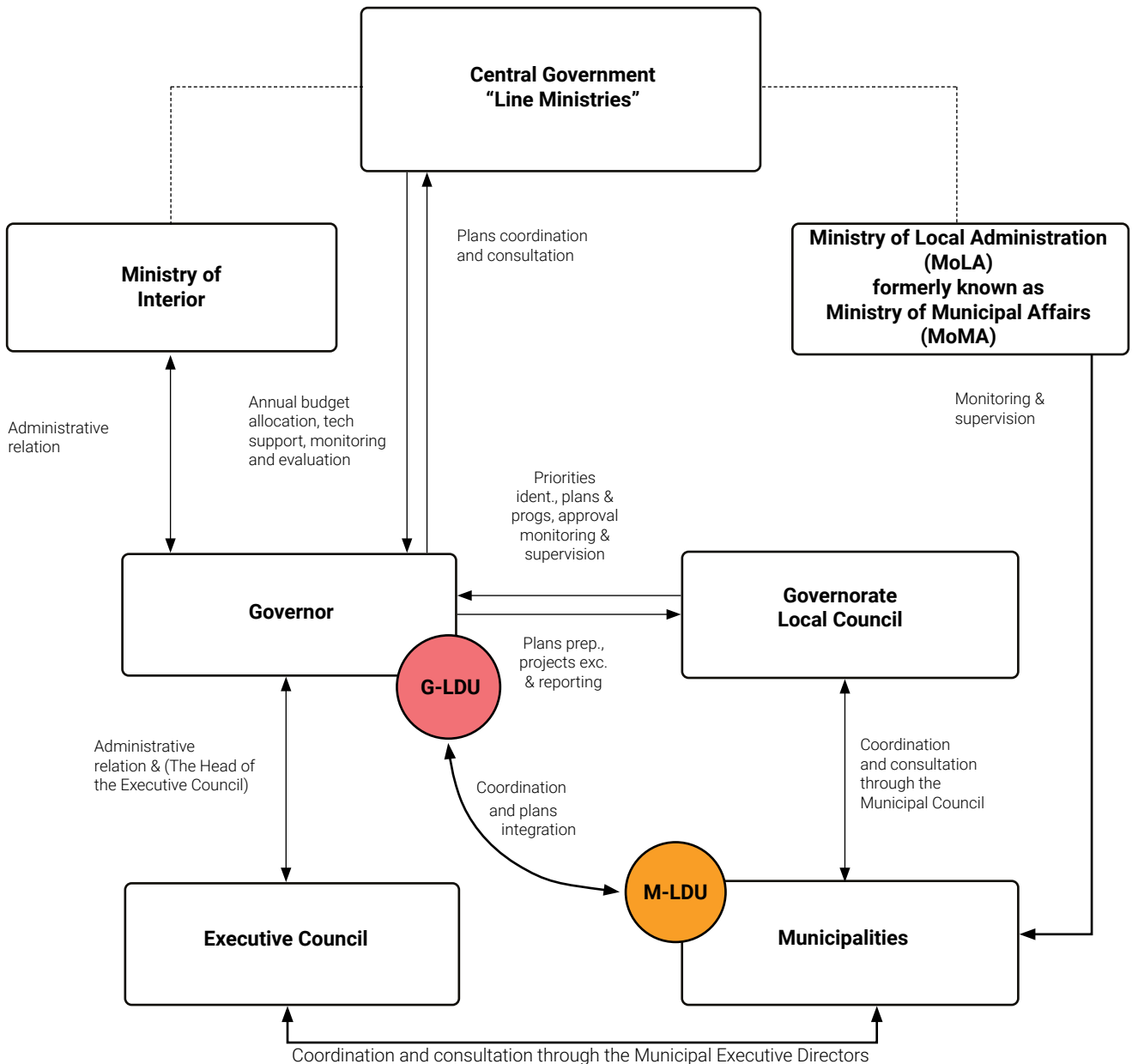
In order to address the rising unemployment, and foster job creation at municipal level, MLDUs were created in the 1990's, but each unit typically consists of only one person.¹⁶³ Some mayors did not see the benefit of the MLDU and shut them down. In 2003, Local Development Units were created within each 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.

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

their communities, and launched the USAID 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.



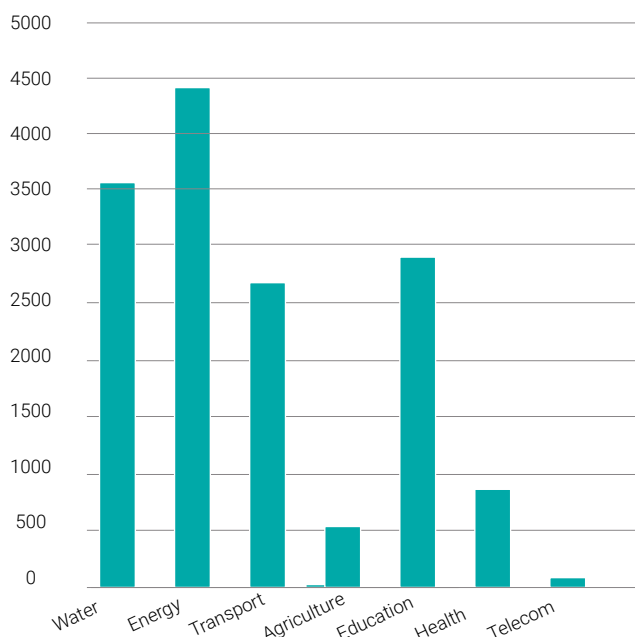
The Decentralization Structure including coordination between LDU's
Source: OECD 2017

Major Infrastructure Initiatives

Jordan's infrastructure is well developed, and contributes heavily 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.¹⁶⁴

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 100.¹⁶⁵ The country is considered to be a global leader in the Activity drive, in particular, scoring 80.9.¹⁶⁶ 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.¹⁶⁷

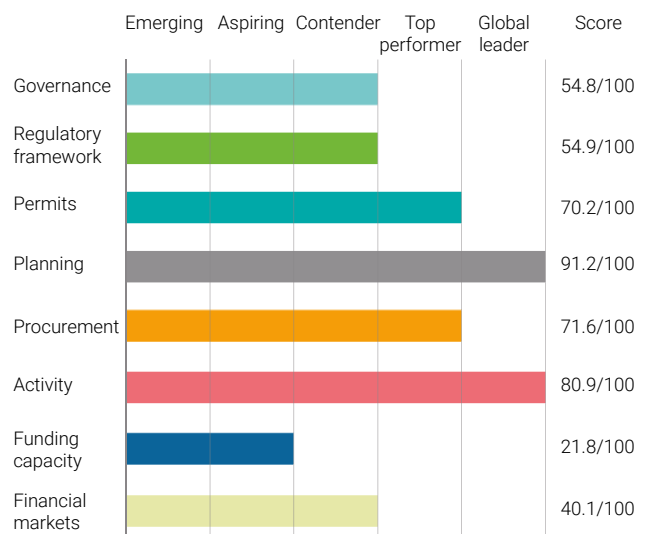
However, InfraCompass 2020 also reveals that there are several metrics to improve, particularly in relation to financial markets (stocks trade), funding capacity (gross government debt) and funding capacity (long term GDP growth). Jordan traded stocks worth approximately 5.5% of GDP in 2019, below the Upper Middle Income Countries' average of 25.6%.¹⁶⁸ This indicator is essential for infrastructure investors to exit investments



Planned and Ongoing Infrastructure Projects' Cost Per Sector

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.¹⁶⁹ 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.¹⁷⁰

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 water 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 water scarcity, reliance on fossil fuels, limited mobility options and growing youth population.

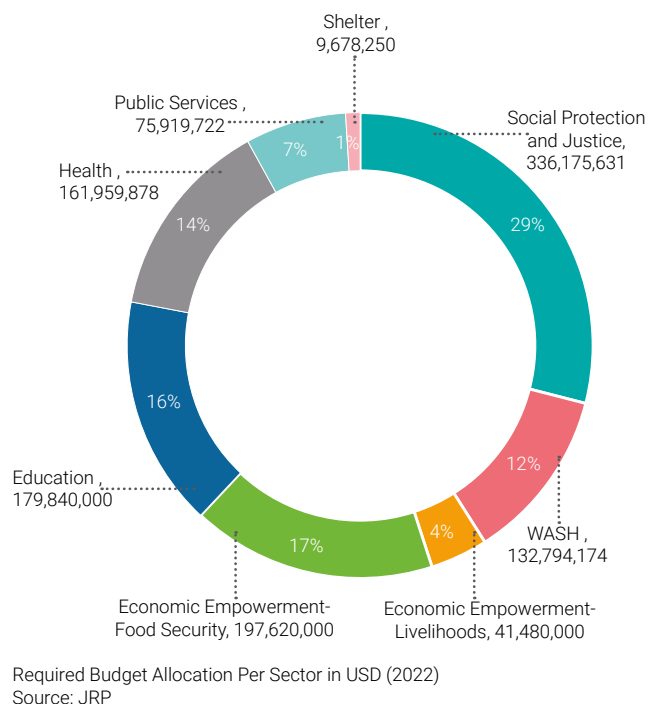


Ranking of Jordan's driver performance on a scale from "Emerging" (score from 0-20) to "Global Leader" (score from 80-100). Source: Global Infrastructure Hub

Refugee Response

The Syrian crisis has increased the pressure across basic needs, such as water supply, educational and health sectors.¹⁷¹ 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.¹⁷²

The JRP supports 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.¹⁷³



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

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, water and wastewater, solid waste, education and other municipal services.¹⁷⁴ 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.¹⁷⁵

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.¹⁷⁶ 100% of the population has access to electricity, with only 10.3% of electricity output lost.¹⁷⁷ 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.¹⁷⁸

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 76.9.¹⁷⁹ The highway network covers more than 2,700km, connecting all corners of the Kingdom with 1,900km of secondary roads.¹⁸⁰ The presence of 3 major airports in the country has strengthened Jordan's connectivity and transport infrastructure.¹⁸¹ 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.¹⁸² 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.¹⁸³

Basic Services

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

approximately 98% of the population has access to an improved water source.¹⁸⁴ Yet, it is estimated that 40% of water transported by pipes around the country is lost to leakage due to dilapidated pipes and tanks as well as improper installation and maintenance.¹⁸⁵

It is worth noting here that water deficits are projected to occur in Jordan due to the increasing water demand, driven by the population growth and influxes of refugees, as well as the decreasing water levels at the existing ground and surface water sources. These deficits are expected to vary geographically across the Kingdom; the Northern Governorates are expected to experience a more significant water deficit in comparison to the Southern Governorates. This increases the need for bulk water conveyance infrastructure to redistribute water. The Ministry of Water and Irrigation is currently considering seven new planned water resources' projects, including: Amman Aqaba Water Desalination Conveyance Project (AAWDPC), Wadi Al Arab II, Hasa Shadeiah Wellfield (Khan Al Zabib Project), Hesban Wellfield Utilization Project, Basalt Wellfield Utilization Project, Kufranjarah Dam Water Supply Project (Phase II), and Wehda Dam Water Supply Project. These projects vary in status ranging from being in the detailed feasibility phase to the construction phase.¹⁸⁶

Furthermore, there are planned wastewater 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.¹⁸⁷

Public Private Partnerships

Jordan has raised about \$10 billion in private capital through PPPs in the electricity, transport, and water sectors since the 1990s.¹⁸⁸ 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.¹⁸⁹ 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.¹⁹⁰

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.¹⁹¹

Stimulated by demographic growth and arrival of several waves of refugees, Jordan's private sector produced 1.1 million dwellings between 2004 and 2015.¹⁹² 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 2015.¹⁹³ 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.¹⁹⁴ In mid-sized cities, Jordanians are competing with Syrian refugees for rental apartments.¹⁹⁵

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.¹⁹⁶

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 2015.¹⁹⁷ 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.¹⁹⁸ 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.¹⁹⁹ However, with the slowdown in construction since 2015, only 35,000 dwellings are formally constructed each year.²⁰⁰

The Housing and Urban Development Corporation 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.²⁰¹ 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.²⁰²

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.²⁰³

Furthermore, 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 1986.²⁰⁴ Various initiatives took place after that across the country to continue upgrading Palestinian refugee camps.²⁰⁵

Climate Risk Context

With very limited sources of water, Jordan is the second most water scarce country in the world, with annual renewable water resources being less than 100 m³ per person.²⁰⁶ It is heavily reliant on water resources outside its borders, which has led to tensions with neighbouring countries. The water scarcity is further compounded by the large influx of refugees, which has increased Jordan's struggle to meet domestic water needs.

Jordan ranked 81 out of 181 in the NDGAIN index for climate vulnerability.²⁰⁷ 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 water (underground and surface), and an increased likelihood of heatwaves, flash floods, droughts and landslides.²⁰⁸

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.²⁰⁹ 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.²¹⁰ The latest flash floods that took place in south of Jordan in 2018 killed 12 people in Petra,²¹¹ and 21 people in the Dead Sea area.²¹² 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.²¹³ This will, in turn, impact food productivity, water resources, health, infrastructure, and urban areas.

Jordan's first National Policy on Climate Change was adopted in January 2013. The policy aims to: strengthen Jordan's capacity respond to the impacts of climate change and solidify Jordan's global stewardship in emission reduction; build the adaptive capacity of communities and institutions with consideration for gender and vulnerable groups; and ensure that the interests of vulnerable groups (including the poor, youth and women) are adequately addressed in mitigation and adaptation policies and strategies.²¹⁴ Jordan has ratified various climate change agreements and protocols, including the Paris Agreement (ratified November 2016), and the Kyoto Protocol (January 2003).²¹⁵

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.²¹⁶ 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 74% of the total GHG emissions of Jordan, while the waste management sector emitted about 13%, and industry about 8%.²¹⁷

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.²¹⁸ 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.²¹⁹

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 wastewater policies, 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.²²⁰

As Jordan's urban footprint is increasing, the land available for agriculture is declining.²²¹ 41% of Jordan's total land area is characterized as degraded due to overgrazing, unsustainable agricultural and water 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.²²²

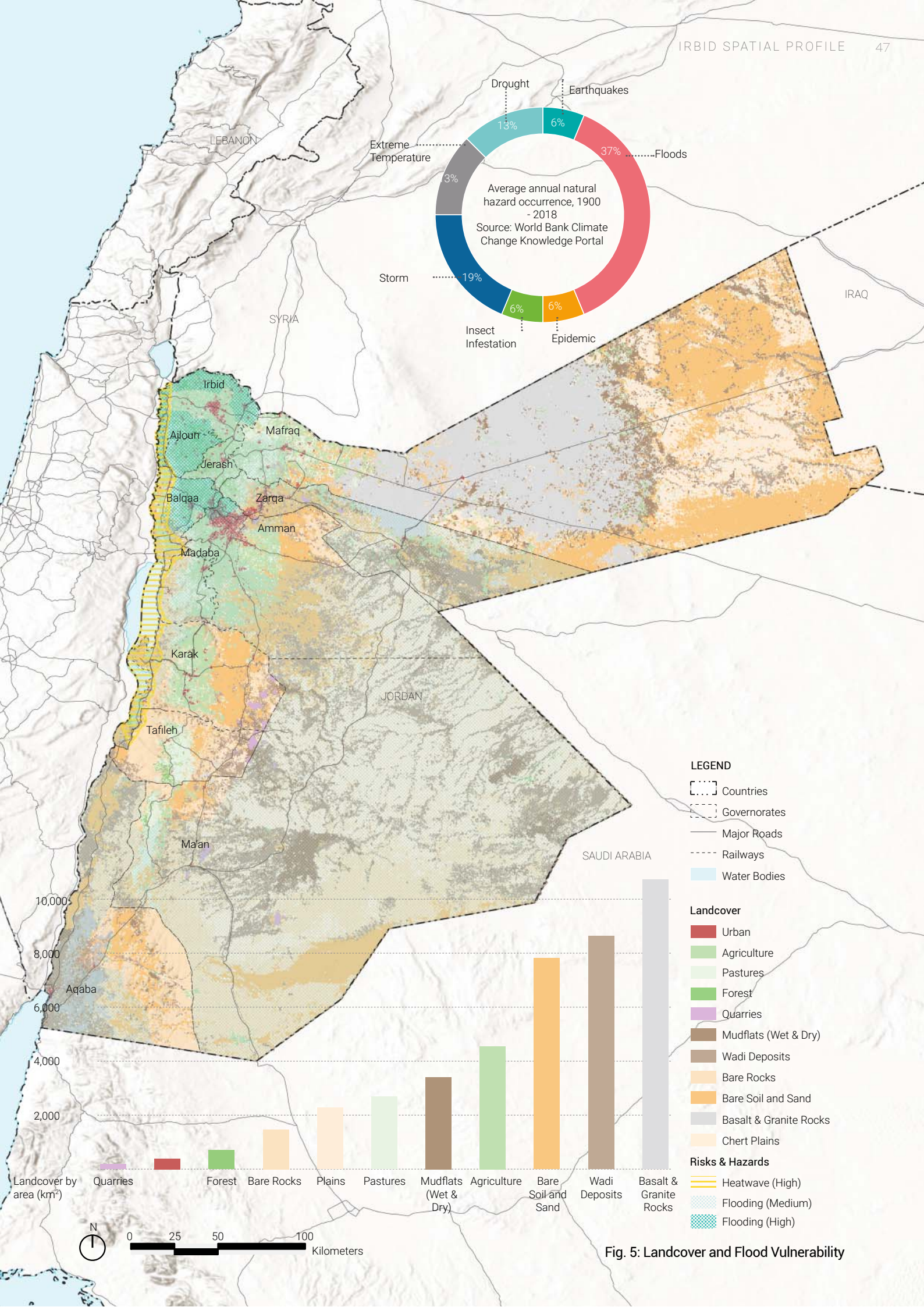


Fig. 5: Landcover and Flood Vulnerability

02

REGIONAL CONTEXT

Irbid Governorate Location and Connectivity

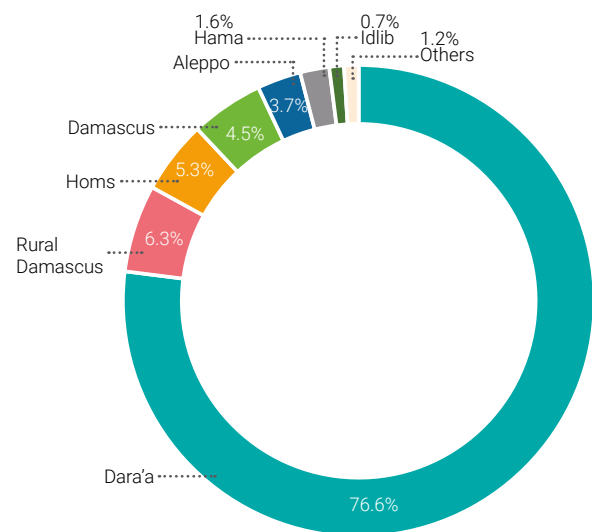
Irbid Governorate is the second largest governorate in terms of population and is located in the north-west region of Jordan, 90 km from the capital Amman. It borders Mafraq governorate to the east and Al Balqaa, Ajloun and Jerash Governorates to the south. It borders the Syrian Arab Republic to the north and the east, and Palestine to the west, making it a main gateway to Jordan. The governorate is around 620 m above sea level,²²³ and extends over an area of 1,571.8 km², equivalent to 1.8% of Jordan's total area.²²⁴

Irbid Governorate is the third most urbanised governorate, with 92.3% of the population being urban.²²⁵ It is the main commercial, administrative and education hub in the northern region.²²⁶ The history of urban development in Irbid Governorate is profoundly interlinked with human displacement either from rural-to-urban or city-to-city in order to seek better livelihood opportunities and access to urban services. In particular, the human displacement caused by the political instability in the neighbouring countries has led to hosting refugees at established camps or within urban areas. The proximity between the country of origin and the host community eased the integration of refugees into host communities based on commonalities of natural and social attributes, such as topography, traditions, language, weather and religion.

Due to its proximity to Syria, Irbid Governorate is hosting more than 20% of the Syrian refugees in Jordan.²²⁷ Access to Jordan by road from Syria is either through Al Ramtha or Jaber Border Crossings. Al Ramtha border crossing is an international border crossing located between Dara'a city in Syria and Al Ramtha in Irbid Governorate. The cities are 12 km apart, which is evident in the fact that 76.6% of Syrian refugees in Irbid Governorate are from Dara'a.²²⁸ This border has been officially closed since the Syrian conflict in 2011.²²⁹

The governorate holds prospects of developmental potentials since it has a high and dense human capital, a high presence of migrant populations, presence of infrastructure and opportunities for economic investments. Land is widely available for agricultural opportunities, and Irbid Governorate's proximity to major regional hubs including Amman, Damascus and Baghdad makes it attractive.²³⁰ In terms of transportation, Irbid is well accessed by most

governorates; around 47.8% of households own at least one private car,²³¹ indicating a heavy reliance on private modes of transportation.



Place of origin of Syrian refugees registered in Field Office Irbid
Source: UNHCR, 2016

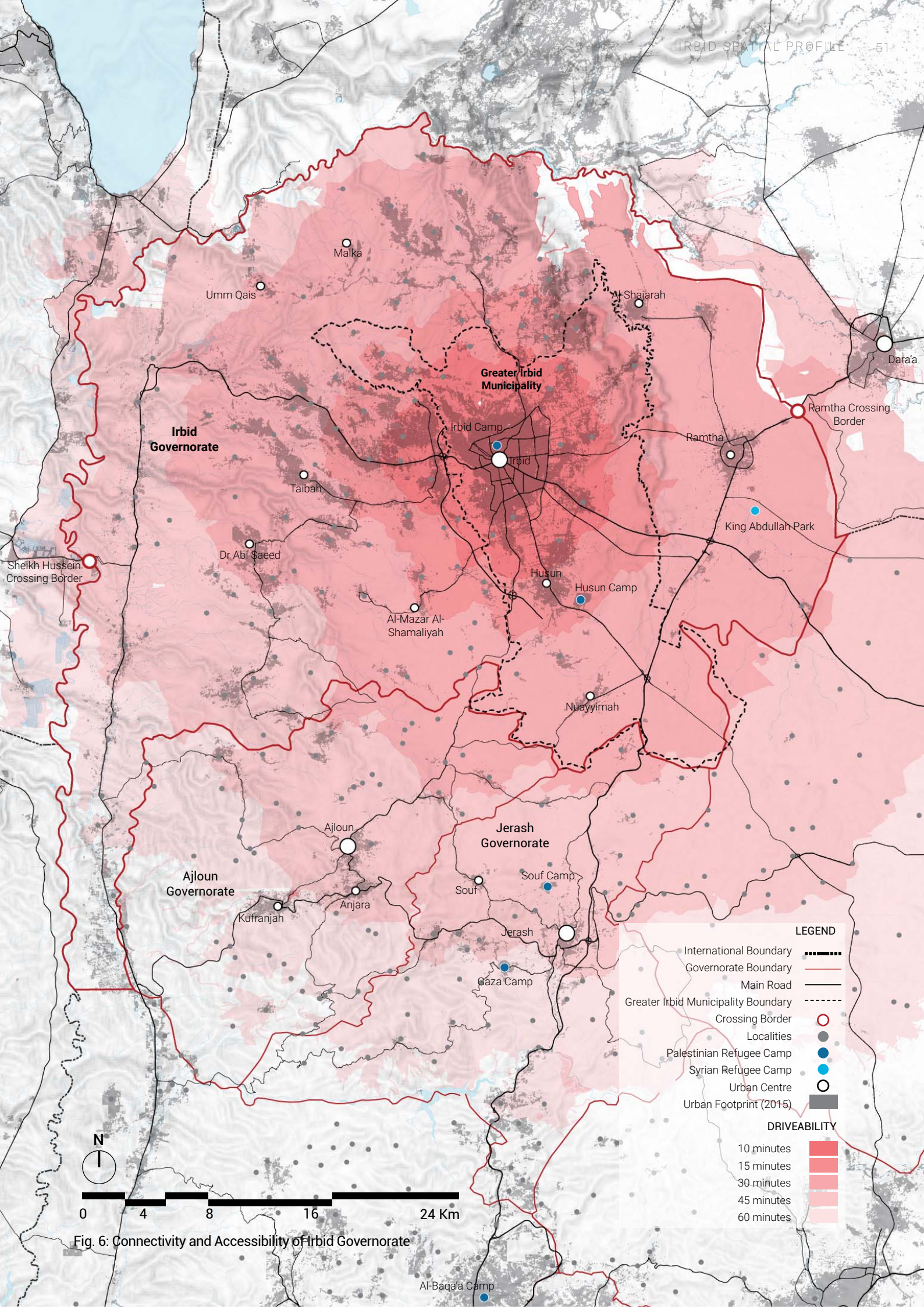


Fig. 6: Connectivity and Accessibility of Irbid Governorate

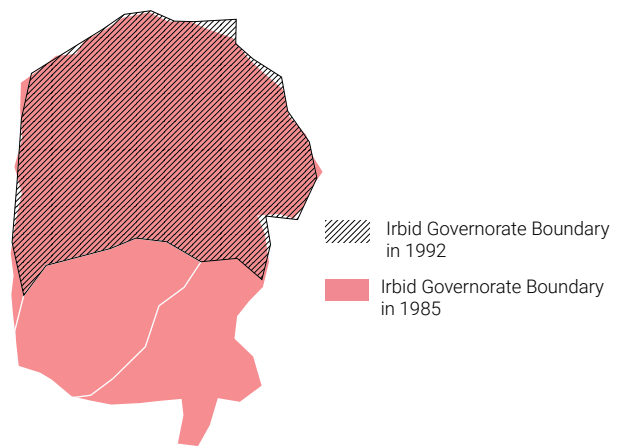
Regional Land Administration and Institutional Context

Irbid Governorate’s administrative boundaries have had a few changes over the past 30 years. Prior to 1994, the administrative boundary of Irbid Governorate included the areas currently under the governorates of Ajloun and Jerash.²³²

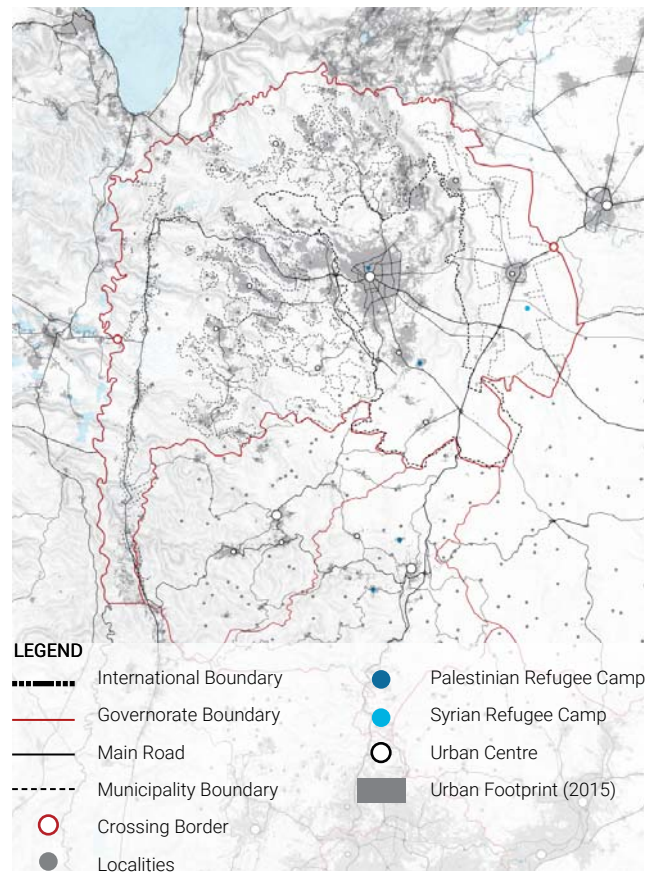
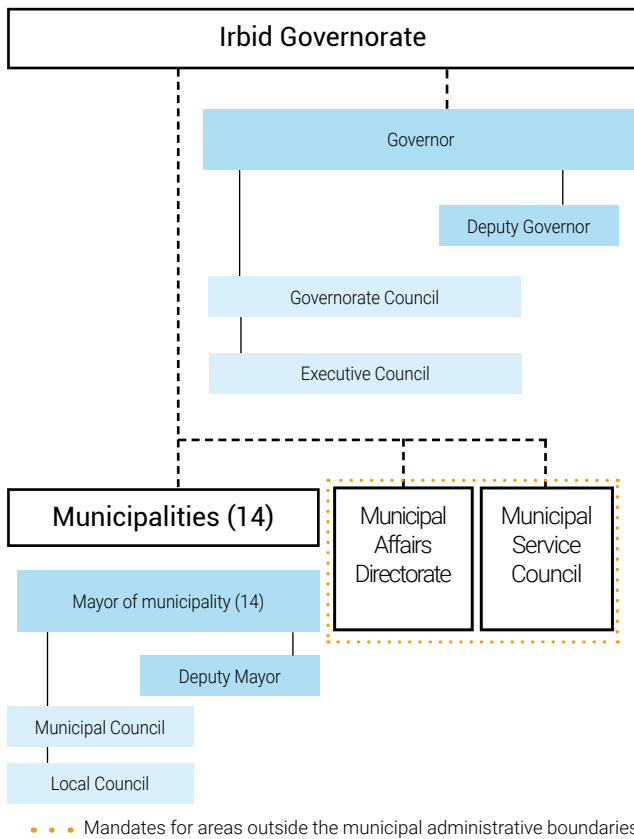
Irbid Governorate is divided into nine Liwas²³³, no Qada, and 14 municipalities.²³⁴ These divisions correspond to different institutions, and particularly 3 different divisions. The administrative boundaries outlined by the Ministry of Interior (MoI) include the Liwas, which are under the administration of the Governorate of Irbid. These divisions cover the entire area of the governorate, and are essential for census, which is conducted by the Department of Statistics.

In terms of planning, the municipalities are mainly responsible for conducting planning activities, under the Ministry of Local Administration (MoLA). There are 14 municipalities within the Governorate of Irbid, including the Greater Irbid Municipalities (GIM). These municipalities do not cover the entire area of the governorate, as there are some uninhabited areas.

As for real estate services and land plotting, the Department of Lands and Survey (DoLS) divides the governorate into eight directorates, 187 villages and 2,009 basins.²³⁵ It is important to highlight that all the administrative boundaries described are not aligned, impacting decision-making processes and planning activities within the governorate.



Changes in the administrative boundaries of Irbid Governorate



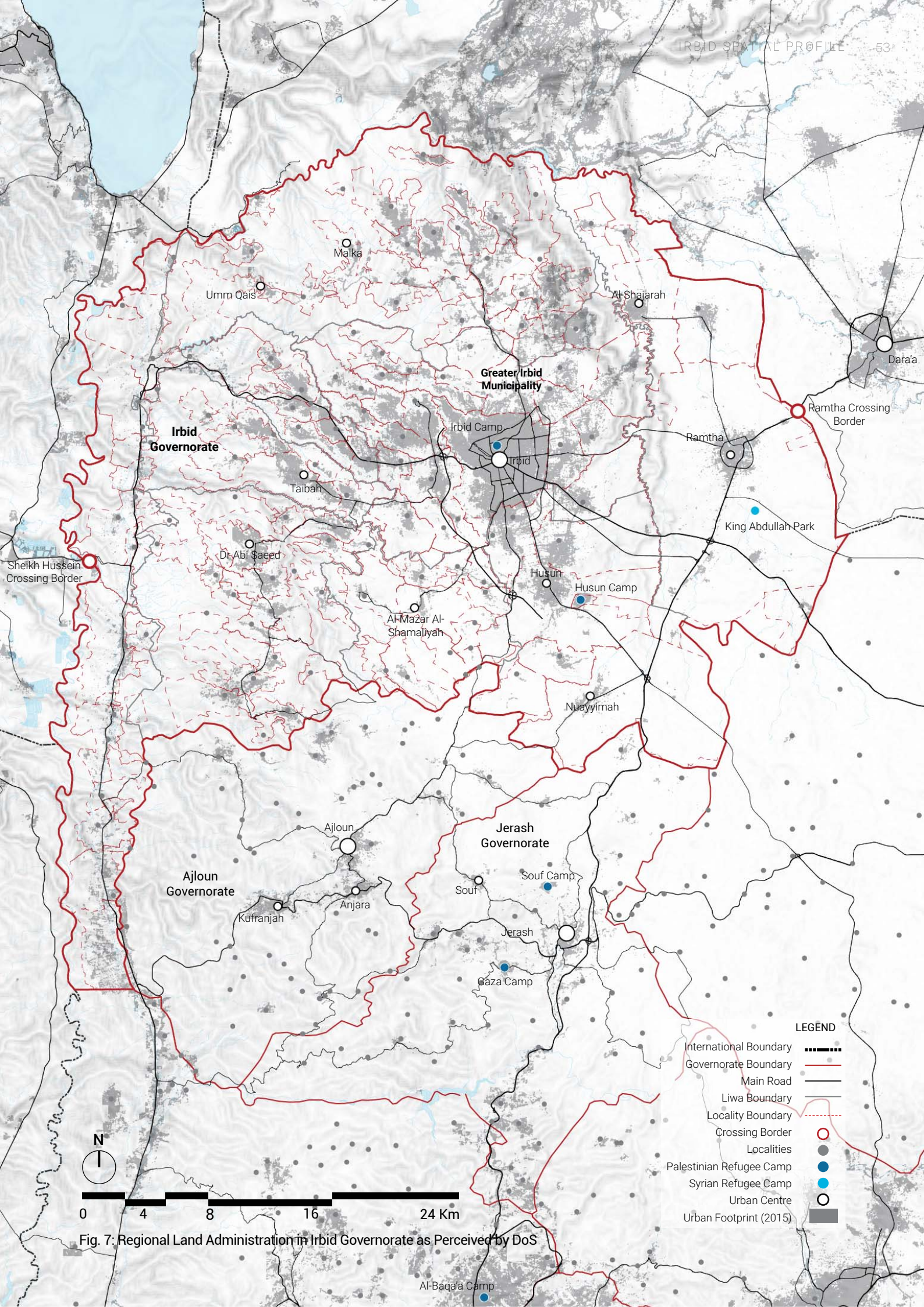


Fig. 7: Regional Land Administration in Irbid Governorate as Perceived by DoS

Regional Planning Context

The Irbid 2030 Plan was developed in 2010 with a 20-year horizon to address planning in Irbid at three different scales: Regional scales (Regional Growth Plan), Municipal Scale (Area Plan), and Neighbourhood Scale (Community Plan)

Regional Growth Plan (RGP)²³⁶

RGP covers an area of 669.5 km² and provides a conceptual growth framework that guides development within Irbid Governorate, and in particular four liwas: Irbid Qasaba, Bani Obeid, Al Mazar and Al Ramtha. The plan addresses growth challenges and opportunities in Greater Irbid, Al Ramtha, West Irbid and Al Mazar municipalities.

RGP provides an overall land use plan and associated policies that direct growth and responds to the growth pressures at the governorate level until 2030 and beyond. The plan also conceptualizes urban-rural development; it proposes the categorization of lands within the planning boundary into urban growth areas, rural growth areas and rural settlement area. The overall strategy of the plan is to integrate land use, infrastructure and transportation planning. The plan is comprised of 12 component (sectoral) plans, each elaborating different aspects of the growth concept, considering several aspects including: balancing nature with culture, tradition with growth, and historic preservation with modernization. It contains a vision for 2030 based on public forums and consultations held with partner municipalities.

Urban sprawl is another goal addressed through the plan, by conserving environmental and agricultural resources to create efficient urban areas and saving money by reducing infrastructure and service costs. The plan provides a set of guidelines to ensure enforcement of land use provisions and development. While the plan was prepared in 2010, it has not yet been approved by the Higher Planning Council (HPC). Even though the law enables first-rank municipalities such as GIM to approve regional plans for the governorate, no regional or structural plans have been approved in Irbid for the past 40 years. Slow approval processes and complex administration provisions at national level hinders regional and local development.

With the arrival of Syrian refugees into Irbid, updating the RGP is critical to ensure addressing urban development challenges further exacerbated by the refugee crisis. However, the Irbid Vision 2030 is still considered the main

guiding document for most development projects at municipality level, including the RGP.

USAID CITIES Programme

As for areas outside the boundaries of the RGP, the USAID CITIES Programme²³⁷ has funded 11 municipalities within the Governorate of Irbid to develop a strategic plan and local development plans, which include the municipalities of GIM, Al Kfarat; New Mazar; Al Sarou; Al Shouleh; Al Taibeh; Northern Aghwar; New Ramtha; Rabieyt al Koura; and Sahel Houran. These plans were developed through a participatory approach that involved all relevant stakeholders. Through preparing a vision and message for the municipality and coming up with a set of strategic, sectoral, and development goals, the programme aimed to increase the performance of the municipality and its services, raise the efficiency of work in it and enhance partnerships between the public and private sectors.²³⁸ Each strategic plan contains a description of the socio-economic context of each municipality, comparing it to governorate and national level data, followed by SWOT and PESTEL analysis, identifying strategic and local development goals followed by an operation plan for each goal, as well as a list of needs identified through discussions with the local councils. These plans do not identify any actions towards addressing refugees' needs and demands, or their integration into communities.²³⁹

Integrated Regional Development Study of Northern Jordan²⁴⁰

As a response to the Jordanian Government's desire to develop the Northern Region and to achieve the economic development envisioned by the five-year development plan (1976-1980), the Government of Japan provided its technical assistance to Jordan by assigning Japan International Cooperation Agency (JICA) and the International Development Centre of Japan to develop the "Integrated Regional Development Study of Northern Jordan" study. The study was divided into two phases: phase one aimed at providing a framework for economic development of northern Jordan and suggesting necessary investments and inputs for the next five-year plan (1981-1985). Phase two aimed at identifying three highest priority projects and providing detailed pre-feasibility studies for the selected projects. These three projects include the Industrial Estate of Irbid, Irbid Ring Road, and Ajlun-Dibben-Jerash Tourism Plan.

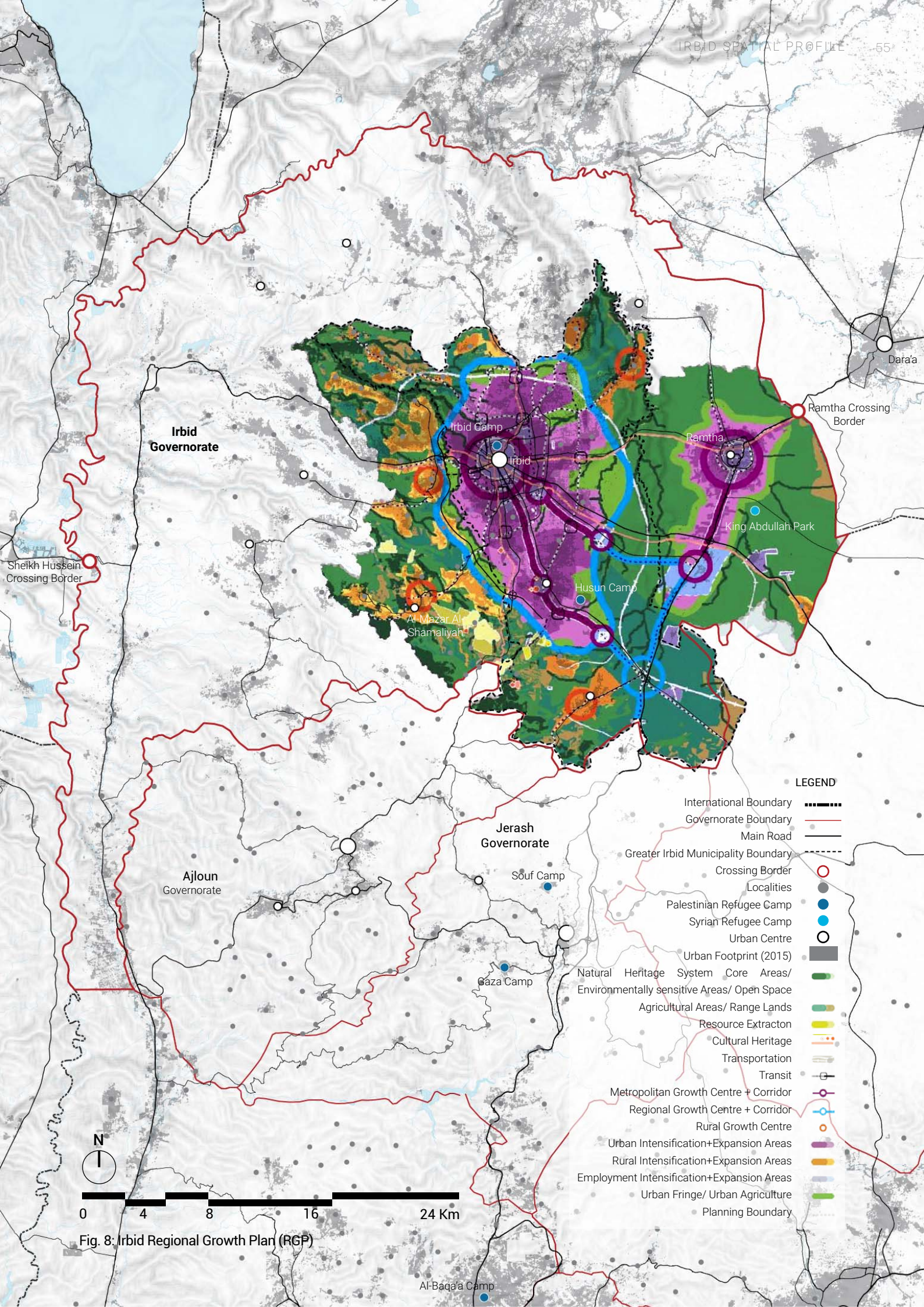


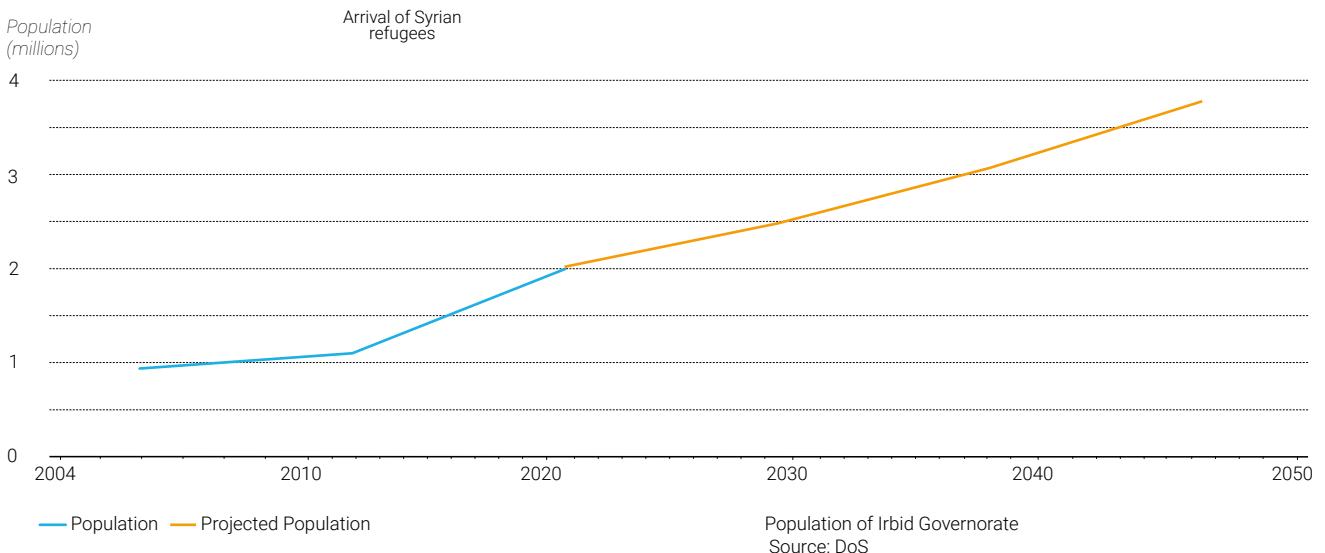
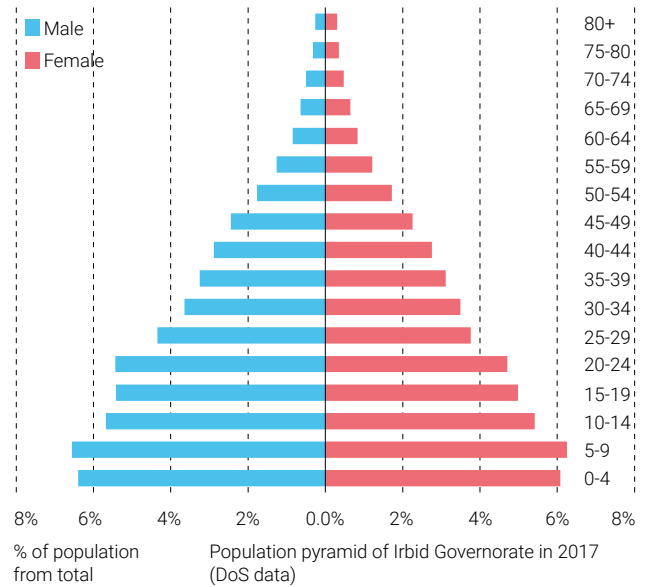
Fig. 8: Irbid Regional Growth Plan (RGP)

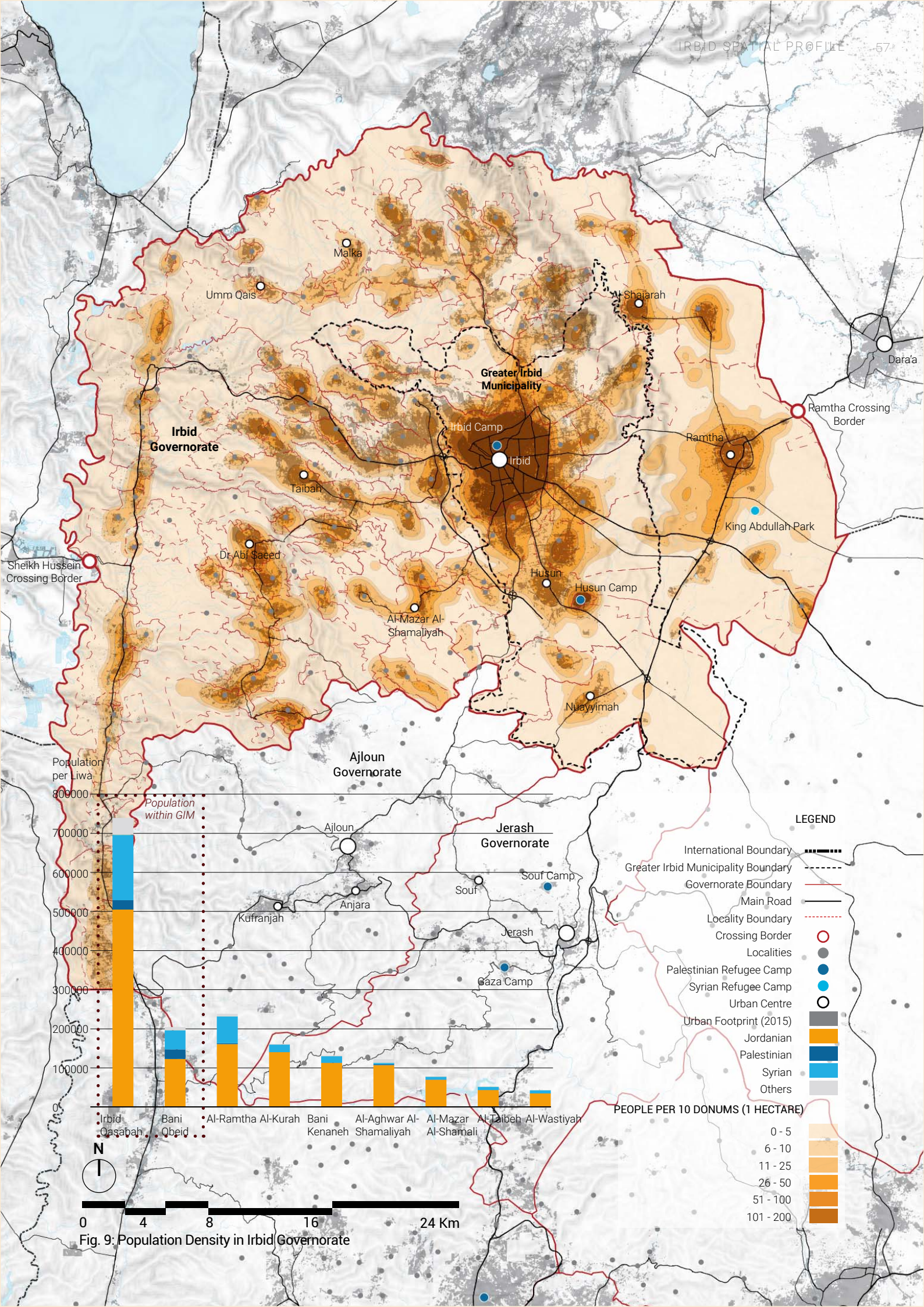
Demographics

Irbid Governorate is the second most populated governorate in Jordan after Amman. As of 2020, Irbid Governorate constitutes 18.5% of Jordan's total population,²⁴¹ reaching 2,003,800, with only 153,300 being rural and the rest are urban.²⁴² The majority of the population resides within the administrative boundaries of GIM. The census conducted by DOS follows the administrative boundaries of Mol, using the Liwa and not the municipalities. The Liwa with the highest population are Irbid Qasaba and Bani Obeid, all of which cover areas that are part of GIM. Two Palestinian refugee camps are also located within these Liwas.

The Liwas of Al Koura, Al Taybeh, Northern Aghwar and Northern Mazar have the lowest population and population densities. They are also considered as poverty pockets due to low development, service and socioeconomic index.^{243,244,245}

Irbid Governorate has the highest population density in Jordan at 1,274.8 people per km².²⁴⁶ More than half of Irbid Governorate's population is aged under 25, which increases demands on educational facilities and the dependency rate and would require careful planning for the future.





Refugees

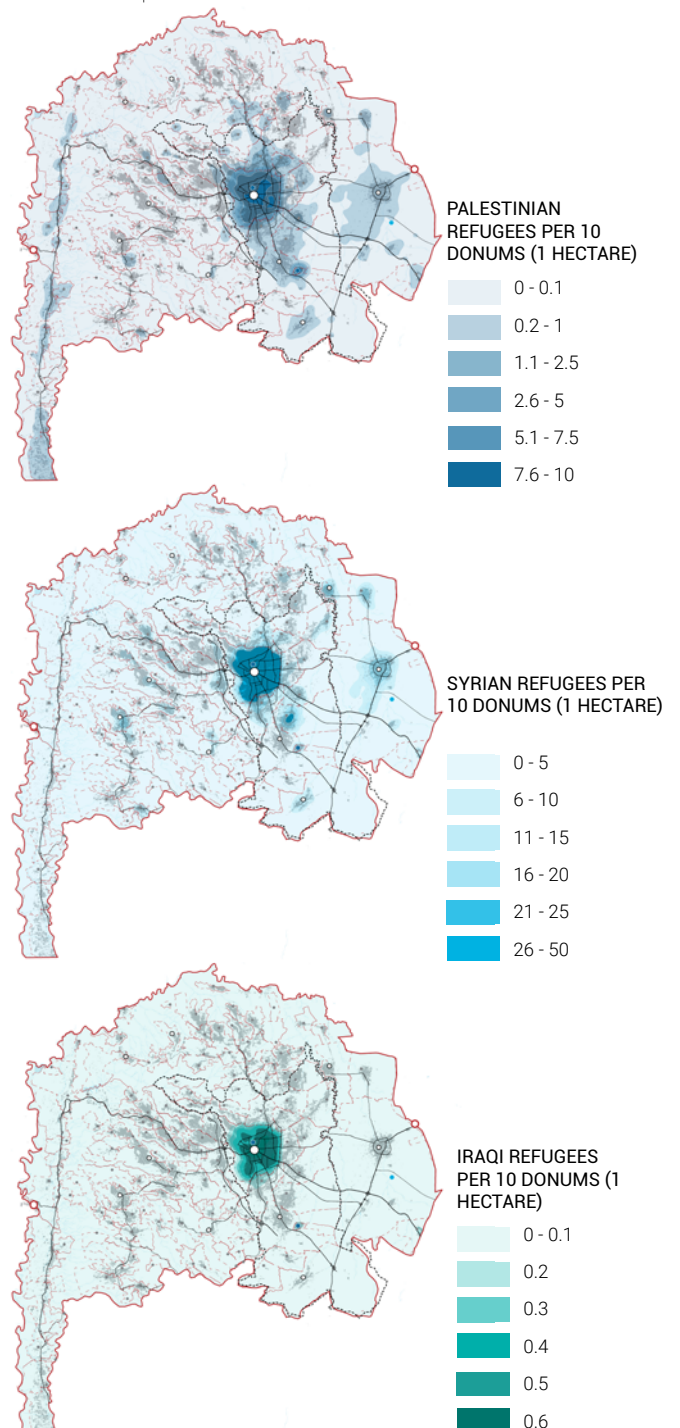
As of 2015, the total number of Palestinians, Iraqis and Syrians in the governorate of Irbid is 792,924.²⁴⁷ The governorate has one of the highest shares of Syrian refugees, whereby more than 24% of all urban refugees registered with UNHCR in Jordan are living in Irbid.²⁴⁸ The total number of refugees registered with UNHCR in Irbid Governorate as of October 2021 is 137,782, including 136,820 Syrian refugees.^{249, 250} As for Palestinians, there are 55,916 registered refugees with UNRWA.²⁵¹ The refugees vary in terms of location of residence across Irbid based on their financial abilities and economic sectors they are active in. Based on disaggregated data on refugees per Liwa, most of the refugees are concentrated in areas within GIM. Overall, there are three Palestinian refugee camps within Irbid governorate, of which two camps; located within GIM; are managed by UNRWA, and one camp named King Abdullah Park (KAP); located close to Al Ramtha city; is operated by UNHCR and UNRWA, as it hosts Palestinian Refugees from Syria (PRS). A fourth camp for Syrian refugees was located in the governorate, named Cyber City. This camp was closed in 2016 and all refugees were relocated to KAP in Al Ramtha district, which now hosts 593 individuals.²⁵² UNRWA is responsible for the official registration of the PRS in KAP, and UNICEF is responsible for WASH services within KAP.²⁵³

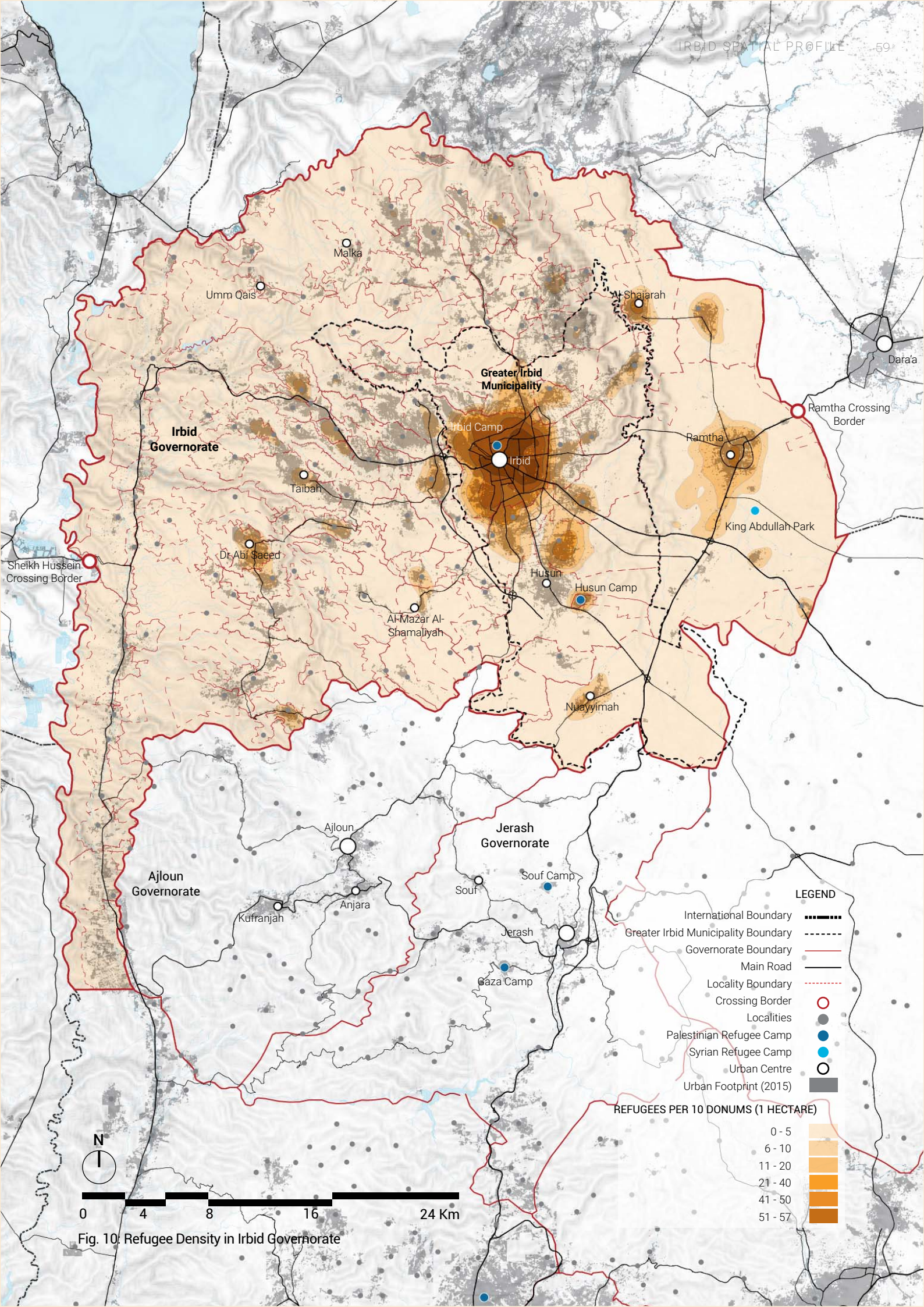
It is important to mention that most of the Palestinian refugees have the Jordanian nationality, enabling them to access benefits and employment opportunities and making them less vulnerable.²⁵⁴

For the Palestinian refugees, the majority are in the central and southern areas within GIM. This correlates to the location of the two Palestinian refugee camps in Irbid, which are now integrated settlements within the urban fabric.

For Syrian refugees, Irbid is usually the first refuge destination for more than 20% of Syrian registered refugees.²⁵⁵ In general, the commonalities in traditions, language, shared history and socioeconomic ties makes it easier to resettle in Irbid. The eastern regions of the governorate are where most Syrians are located due to the spatial proximity to Dara'a; both Al Ramtha and Dara'a are part of Horan Plains. Proximity to Al Hasan Industrial Estate in the east of the governorate is another factor defining patterns of settlements of Syrian refugees, whereby the Estate employs 1% of Syrian labour force.²⁵⁶

As for Iraqi refugees, they are predominantly located in urban centres of Irbid Qasaba due to the availability of infrastructure services. The governorate provides reasonable rental prices compared to Amman while also offering economic opportunities that attract business-oriented Iraqis.





LEGEND

- International Boundary
- Greater Irbid Municipality Boundary
- Governorate Boundary
- Main Road
- Locality Boundary
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre
- Urban Footprint (2015)

REFUGEES PER 10 DONUMS (1 HECTARE)

- 0 - 5
- 6 - 10
- 11 - 20
- 21 - 40
- 41 - 50
- 51 - 57



Fig. 10: Refugee Density in Irbid Governorate

Regional Infrastructural Access

As illustrated in the map, most of the urban areas within the governorate are adequately supplied with water and electricity, while several areas are not connected to the sewerage network.

Water

Irbid Governorate is highly dependent on groundwater and rainwater collected in dams.²⁵⁷ The governorate gathers around 54% of Jordan's water sources.²⁵⁸

63% of governorate residents are connected to the public network for drinking water, compared to 93% nationwide.²⁵⁹ Despite the established connections, more than 80% of the population does not rely on the public network for drinking water, but on mineral water.²⁶⁰ As for refugees, only 10% rely on piped water as the main source of drinking water; 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 water well.²⁶¹ Overall, there are challenges with water access through the public network. Water loss and weak pumping due to lack of pipelines' maintenance has led to many seeking to purchase water from private suppliers especially during the summer, increasing the purchase prices.²⁶² To try to mitigate the water deficiency at government level, an in-depth analysis to the water supply systems has been conducted. The proposed improvements for Irbid Governorate include improving the pipeline network, and reservoirs capacity, in addition to system restructuring.²⁶³

Solid Waste Management

For solid waste management, Irbid generates approximately 721,504 tons of solid waste annually, accounting for the highest share in the northern region in 2016. It is projected that by 2034, the governorate's solid waste generation will double, reaching 1,516,151 tons/year.²⁶⁴ Three transfer stations serve the governorate, which then transport all waste to Al Akaider Dumpsite in Mafrq governorate.

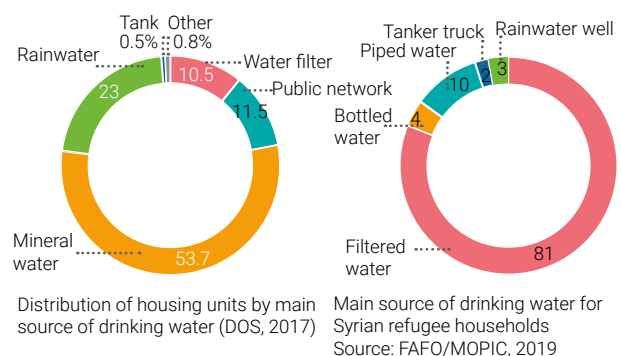
Sewerage and Wastewater

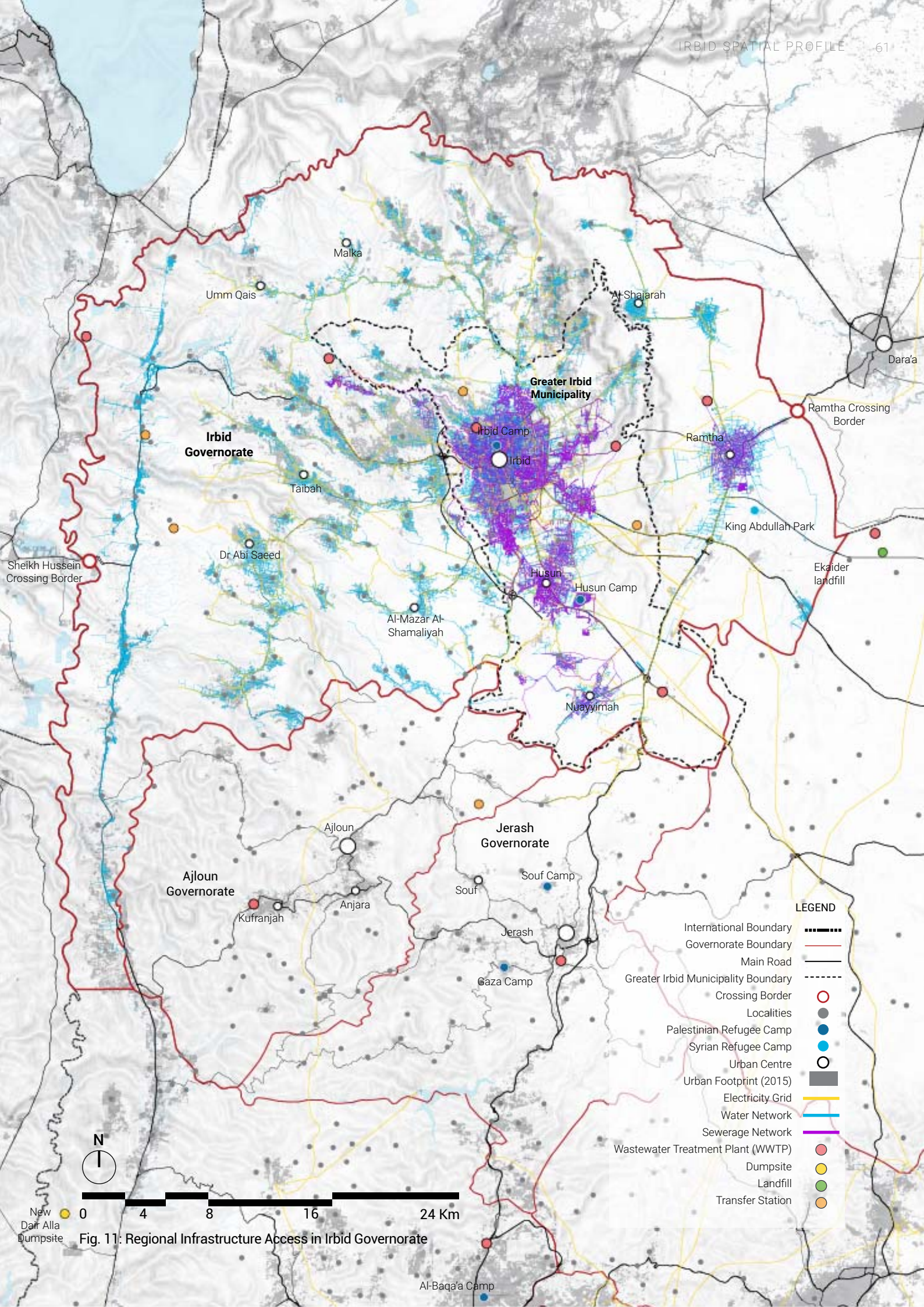
The sewerage service covers 56% of the total water subscribers in the governorate, compared to 63% at national level.^{265,266} The remaining 48% rely on septic tanks or other means of waste disposal, such as latrines. Three main Liwas in Irbid Governorate are connected to the sewerage network, including Irbid Qasaba, Bani Obeid and Al Ramtha.²⁶⁷

In terms of wastewater, Irbid Governorate has six centralized Wastewater Treatment Plants (WWTP). Based on the stakeholder workshop, the main challenges identified relating to sewerage include: residents throwing solid waste in the network and lack of regular maintenance, leading to blockage of the network or damaged pipelines.²⁶⁸ The absence of a storm-water network has increased demand on the sewerage network and wastewater treatment plants. The wastewater infrastructure master plan developed in 2020, indicated six major projects to be implemented in Irbid Governorate. These projects intend to improve the pipeline network, pump stations capacity, and service expansion.²⁶⁹

Electricity and Energy

99.1% of the population are connected to the electricity network at governorate level compared to 99.9% at national level.²⁷⁰ In terms of heating, 54.8% of households rely on gas for heating (compared to 47.9% at national level), 29.0% of kersone or solar heater (compared at 31.1% at national level), and 7.8% rely on wood, charcoal or jift (compared to 7.1% at national level).²⁷¹ As for household appliances, 82.9% have a water heater (compared to 78.5% at national level), 9.7% use a solar heater (compared to 12.2% at national level), 36.0% have an air conditioner (compared to 32.0% at national level).²⁷² The main challenges relating to provision of electricity includes high pressure on electrical power plants, resulting in frequent electricity failures during the year, especially during peak seasons around the summer. There is also a lack of dependency on alternative renewable energy sources,²⁷³ whereby more than 80% of the residents depend on gas and electric water heaters rather than solar heaters (9.7%).²⁷⁴ Overall, urban growth takes place without proper planning, and infrastructure provision follows areas where urban sprawl occurs.





LEGEND

- International Boundary -----
- Governorate Boundary ———
- Main Road ———
- Greater Irbid Municipality Boundary - - - - -
- Crossing Border ○
- Localities ●
- Palestinian Refugee Camp ●
- Syrian Refugee Camp ●
- Urban Centre ○
- Urban Footprint (2015) ■
- Electricity Grid ———
- Water Network ———
- Sewerage Network ———
- Wastewater Treatment Plant (WWTP) ●
- Dumpsite ●
- Landfill ●
- Transfer Station ●



New Darf Alla Dumpsite

Fig. 11: Regional Infrastructure Access in Irbid Governorate

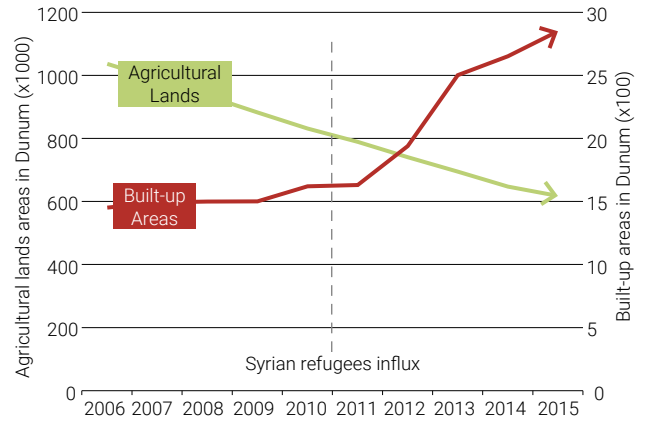
Land Use

Due to the topography and climate of Irbid Governorate, the majority of the land cover is considered green; 39% of the land use within the governorate is classified as agricultural areas, followed by planned areas at 15%, peripheral areas at 9.6%, rural areas at 0.4% and forests at 3.7%. The planned areas identified are mostly located around Liwa of Irbid Qasabah, with some scattered on the western regions of the governorate.

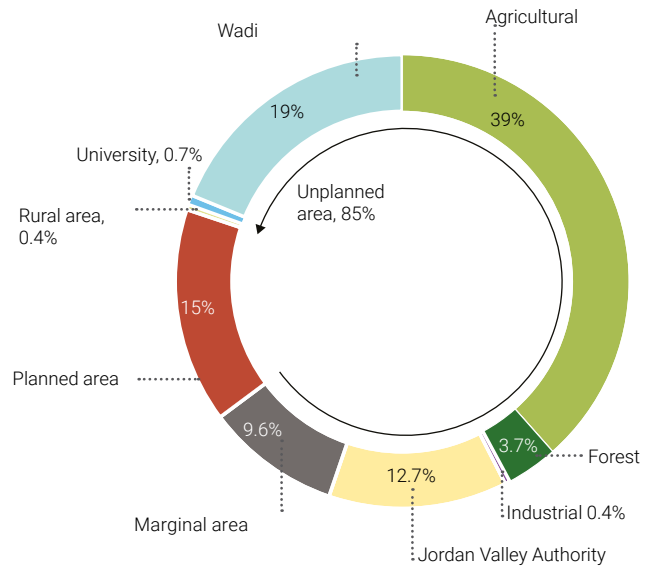
The incremental growth of built-up areas at the expense of agricultural lands has been continuously growing between 2006 and 2015.²⁷⁵ The governorate witnessed a drastic growth in urban areas in 2011, coinciding with the influx of Syrian refugees.²⁷⁶

The Palestinian refugee camps in Irbid Governorate were set up in 1948 and 1967 prior to any attempts to develop a land-use plan for the city or the governorate. As the camps were initially set up as temporary, they have now become integrated into the urban fabric of Irbid City.

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. Initially, two camps were developed as temporary sites in King Abdullah Park (KAP) and the Industrial Cyber City on land classified as agricultural. In 2016, Cyber City Camp closed and refugees were relocated to KAP.²⁷⁷



Urban sprawl impact on agricultural lands in Irbid Governorate - Dunum = 1000 sqm
Source: IISTE.ORG, 2017



Classification of land in Irbid Governorate
Source: MoLA, 2007

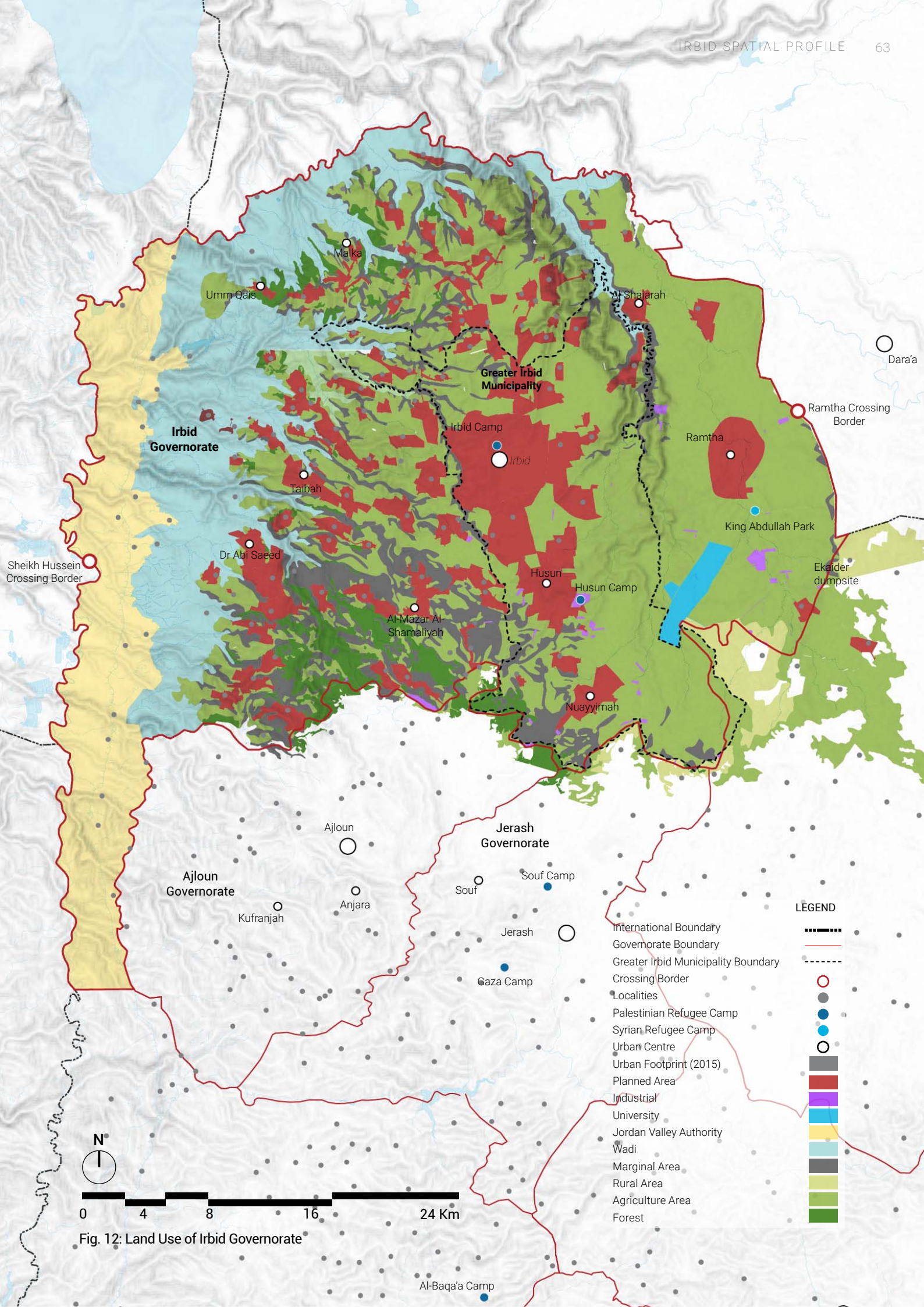


Fig. 12: Land Use of Irbid Governorate

Al-Baqa'a Camp

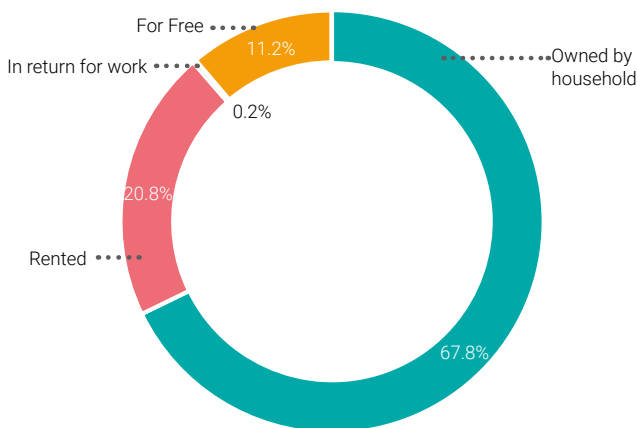
Housing

In Irbid Governorate, 67.8% of households reside in their own property whereas 20.8% reside in rental property, 11.2% in free housing, and 0.2% are provided housing in return for work.²⁷⁸

Housing units in demand by most residents are between 150-199 m² at governorate level, while the average is at 136.8 m². The average number of rooms per house is 4.0, with an overcrowding rate of 1.2 persons per room in dwelling unit.²⁷⁹ Compared to northern governorates, Irbid Governorate has the highest average housing area and number of rooms, and lowest overcrowding rates. For Syrian refugees in Irbid Governorate, the overcrowding rate increases to 2.9, as the average number of rooms per unit decreases to 3.1, and the average housing area also decreases to 103.3 m².²⁸⁰

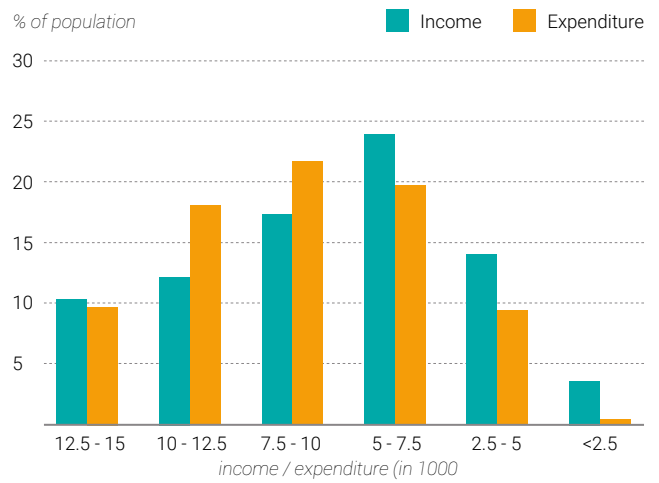
In terms of affordable housing, despite the governorate witnessing an increase in demand for affordable housing, it is limited and has become a critical issue due to inflation in land, construction, and energy prices.²⁸¹ As aforementioned, the HUDC is the sole government agency responsible for housing 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 Jordanian citizens. 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. The last implemented initiative was in 2012, whereby HUDC's role began transitioning to be more policy focused.²⁸²

The majority of the Syrian refugees living outside of camps in Irbid Governorate live in apartments as opposed to



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

traditional houses, as apartments are more readily available in urban areas.²⁸³ Only 1% of non-camp households own their home, 1% occupy their house for free, and 98% pay rent. In Irbid Governorate, the mean rent per unit is 149 JOD per month.²⁸⁴



Distribution of households by annual household income & expenditures
Source: DOS, 2020

Governorate	Overcrowding Rate (persons-per-room in dwelling unit)	Average Number of Rooms	Average of Housing Area (m ²)
Amman	1.2	4.3	138.1
Syrian Refugees	1.7	2.7	96.7
Palestinian Refugees	1.4	3.5	126.0
Zarqa	1.4	3.7	118.4
Syrian Refugees	1.7	2.7	95.7
Palestinian Refugees	1.6	3.3	106.4
Irbid	1.2	4.0	136.8
Syrian Refugees	1.8	3.1	103.3
Palestinian Refugees	1.4	3.5	118.9

Average of Housing Area & Number of Rooms & Overcrowding Rate by Gov.
Source: DOS/ Household Expenditures & Income Survey 2017 and FAO and MOPIC/The Living Conditions of Syrian Refugees in Jordan 2017-2018.

Governorate	Apartment	Traditional House	Caravan	Improved 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

The Percentage of the Type of Housing by Governorate
Source: DOS

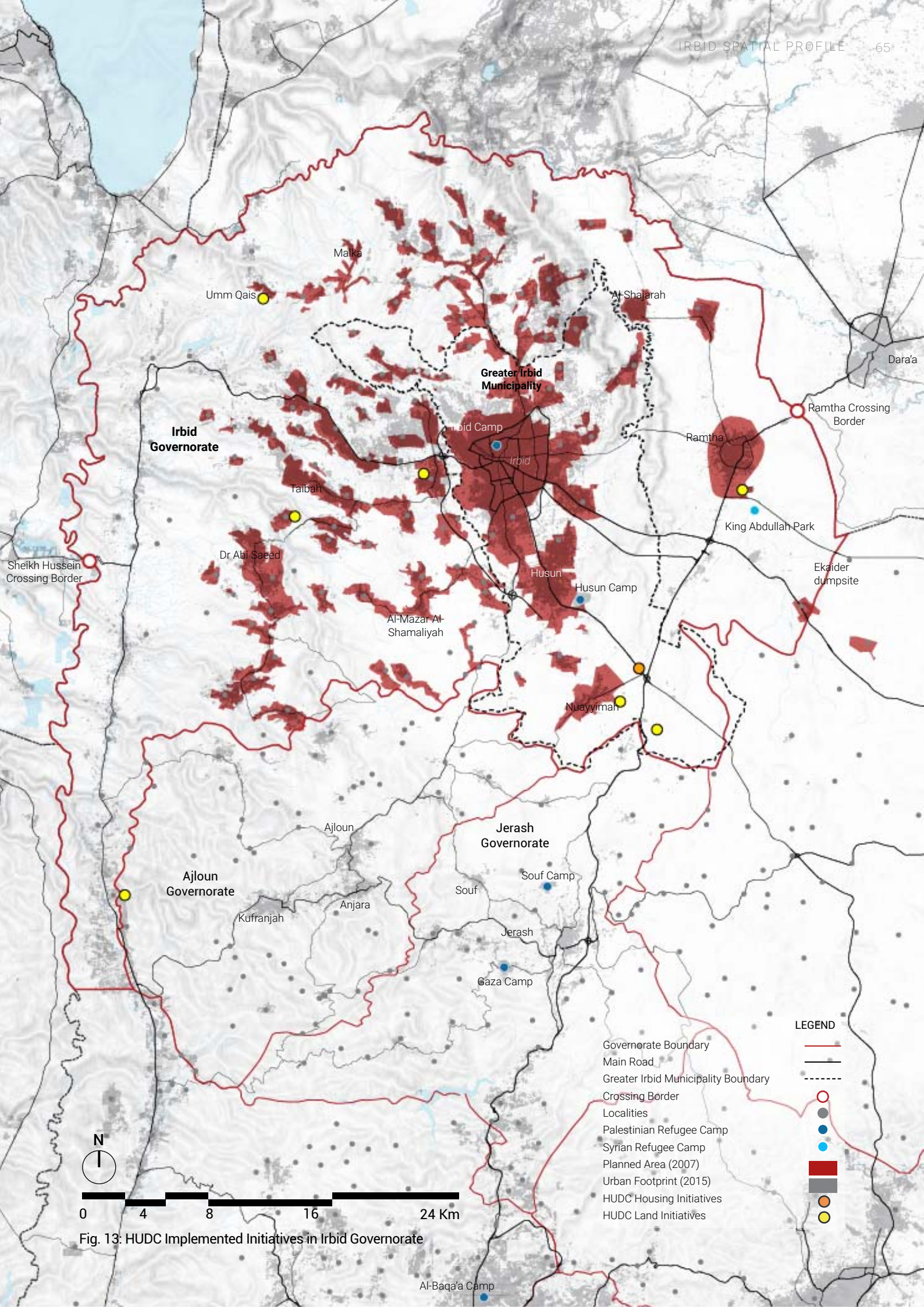


Fig. 13: HUDC Implemented Initiatives in Irbid Governorate

LEGEND

- Governorate Boundary
- Main Road
- Greater Irbid Municipality Boundary
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Planned Area (2007)
- Urban Footprint (2015)
- HUDC Housing Initiatives
- HUDC Land Initiatives

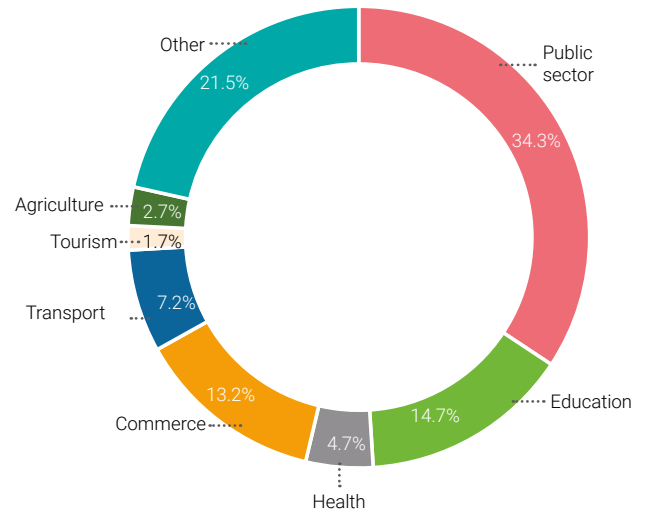
Local Economic Activity

The poverty rate in the governorate is 15%, which exceeds the country's overall poverty rate of 14.4%.²⁸⁵ The governorate has three poverty pockets: Koura, Northern Mazar, and Northern Shouneh Liwas.²⁸⁶ Additionally, the inflation rate of 5.2% within the governorate has exceeded the general inflation rate of 4.77% within the kingdom.²⁸⁷

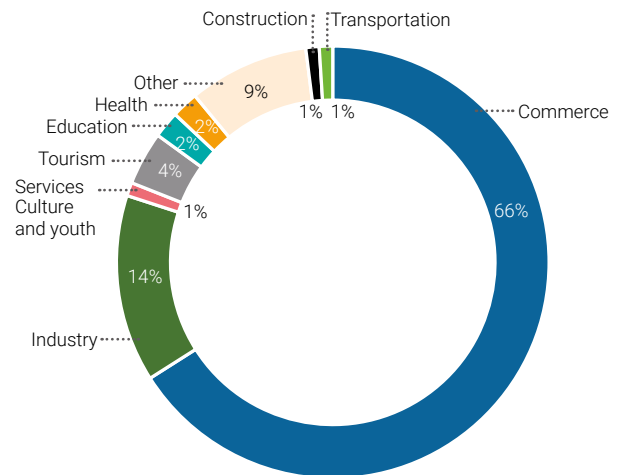
Nevertheless, the Irbid Governorate is the second, after Amman, in terms of the number of economic enterprises in operation, with a contribution rate of up to 71% of the total economic enterprises in the north (about 16.7% at country-level).²⁸⁸ There are four Industrial and Development Zones in the Irbid Governorate: Prince Hasan Industrial City, Irbid Development Zone, Cyber City, and Jordan River Crossing City. Prince Hassan Industrial City is the second largest industrial city in the Kingdom with regard to the volume of investment, which has created 36,509 job opportunities through more than 154 operating companies.²⁸⁹ Additionally, enterprises operating in commercial and industrial activities constituted about 80% of the total enterprises in the Irbid Governorate.²⁹⁰

Although the Irbid Governorate is a main agricultural region,²⁹¹ the Governorate's economy depends on several sectors, predominantly public administration, wholesale, retail and repair, education, transportation and storage, and manufacturing respectively, as well as other economic activities at lower rates.²⁹² The public sector has the highest percentage of the governorate workforce with a total of 34.3%. This is followed by the education sector at 14.7%, the commercial sector at 13.2%, and the transport sector at 7.2%.²⁹³

Furthermore, the Irbid Governorate is characterized by the presence of many universities with outstanding academic standards, which contributes to the enhancement of the local development process and advances in the research and development sector. In addition to attracting international students who had an impact on the urban expansion and commercial development of the city.



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



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



Commercial Shops at Al Ouda Neighbourhood (UN Habitat, 2021)

03

CITY CONTEXT

Administration and Governance Context

Under MoLA's administration, Irbid Municipality was created in 1881.²⁹⁴ In 2001, the Cabinet announced their decision to merge the 16 areas adjacent to the city of Irbid with the original seven areas of old Irbid city, thus forming what is known today as the Greater Irbid Municipality.²⁹⁵ The municipal boundary of GIM covers most of Irbid Qasabah Liwa and the entire Liwa of Bani Obeid.

GIM is divided into 23 districts.²⁹⁶ The boundaries of GIM cover an area of 356 km², accounting for 22.7% of Irbid Governorate's area.²⁹⁷ The regulated area which is 122 km², accounts for 34% of the GIM's total area.

GIM's organisational structure includes 21 departments supervised by five Mayor's assistants for Planning Affairs, Engineering Affairs, Technical Affairs, Financial Affairs and Local Areas Affairs.²⁹⁸ GIM is the only municipality in which research studies and planning are developed under a single department.²⁹⁹ It also developed a Crisis and Risks unit, which falls under the responsibility of the Executive Director.³⁰⁰

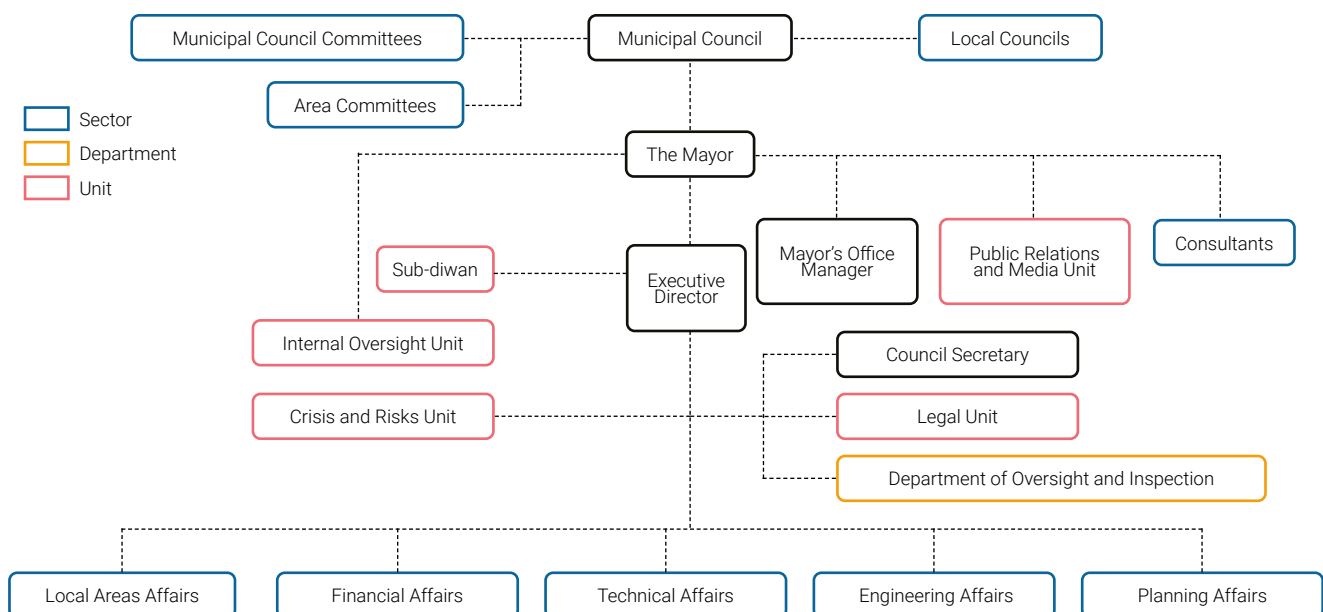
The Greater Irbid Municipal Council is headed by the Mayor, and consists of 30 members; of which six are

required to be women.³⁰¹ Each member represents a district, and is elected by residents for a span of four years.³⁰²

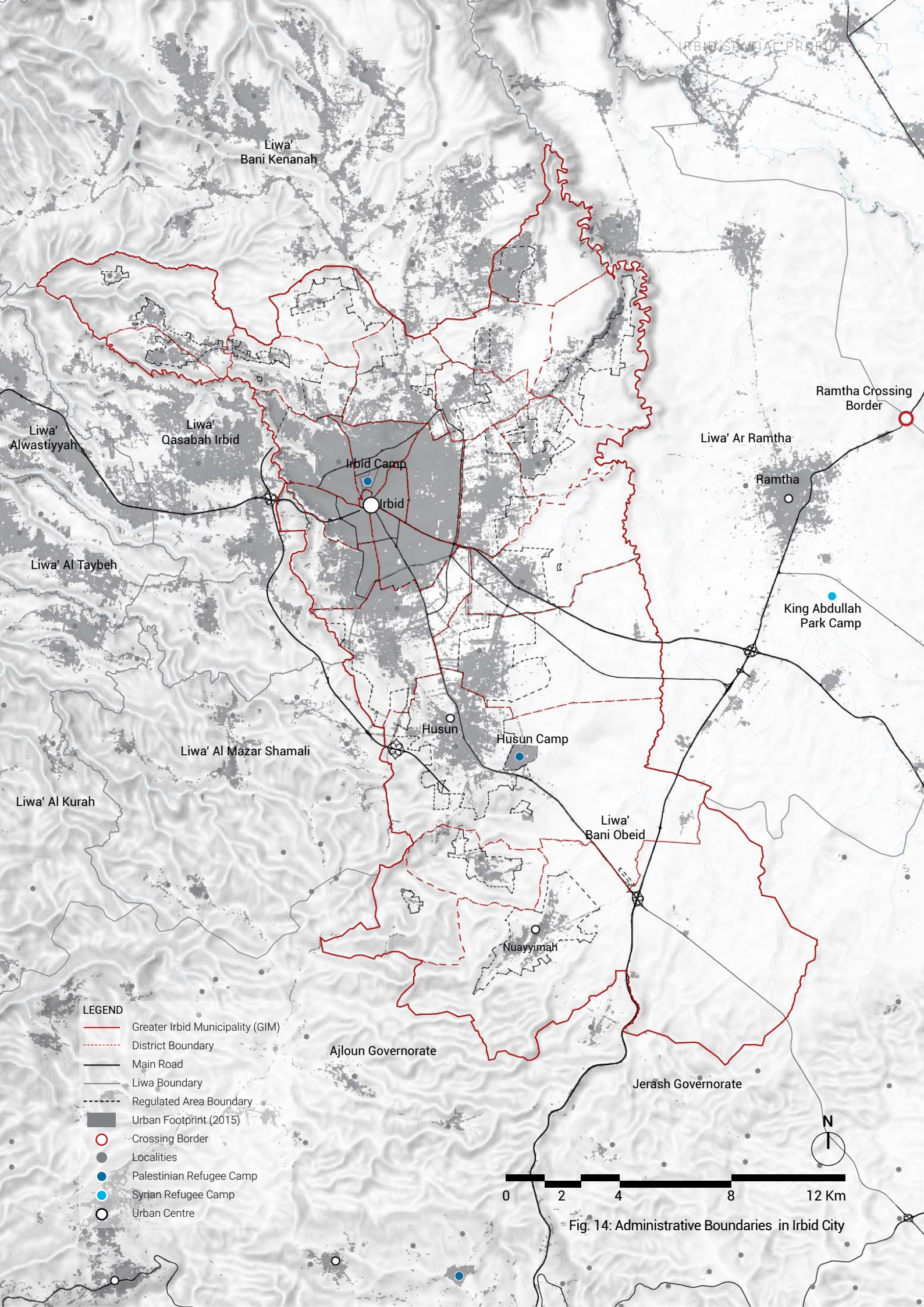
GIM controls all services provided for its inhabitants, including roads' maintenance, street-lighting, solid waste management, building approvals, tax collections, among others.³⁰³ It is responsible for providing municipal services for all the societal segments within its municipal boundaries regardless of their status of residency, to include both Jordanians and non-Jordanians.

With the presence of two Palestinian refugee camps within GIM, UNRWA is responsible for managing the solid waste collection within the Palestinian camps, as well as providing maintenance for roads, sewerage, water, and electricity networks.

As described earlier, detailed and structure plans are typically approved by the HPC. However, only a few municipalities, including GIM, were granted the right to approve detailed plans without the review of HPC.³⁰⁴ As for the masterplan, a masterplan for GIM was developed in 2010, however, it still has not been approved by the HPC.³⁰⁵ Despite the delay in getting approvals, GIM still follows the masterplan for their development.



GIM's organisational chart (GIM, 2019)



- LEGEND**
- Greater Irbid Municipality (GIM)
 - - - District Boundary
 - Main Road
 - Liwa Boundary
 - - - Regulated Area Boundary
 - Urban Footprint (2015)
 - Crossing Border
 - Localities
 - Palestinian Refugee Camp
 - Syrian Refugee Camp
 - Urban Centre



Fig. 14: Administrative Boundaries in Irbid City

Population Density and Distribution

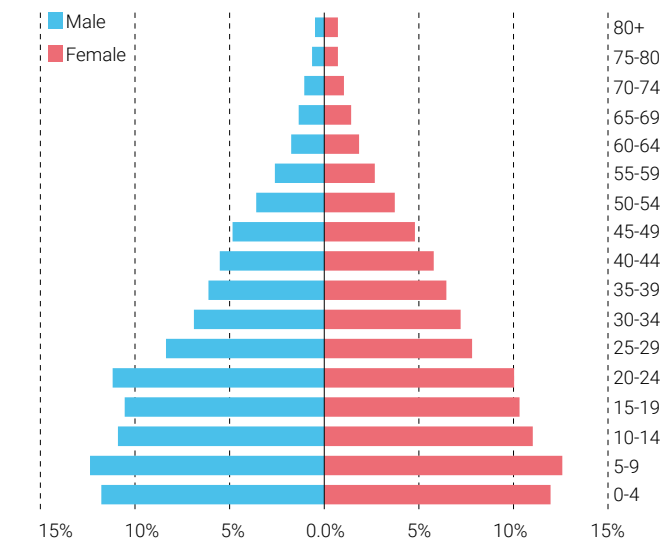
In 2015, the population within Greater Irbid Municipality reached 926,210 inhabitants, accounting for 52% of the governorate's total population.³⁰⁶ The city's growth is due to various factors, including rural-urban migration, concentration of economic activities and services, but most importantly the influx of refugees.

There is a relatively equal distribution between males and females in GIM, with the female to male ratio being 48.3:51.7.³⁰⁷ Around 62.7% of GIM's population are aged between 15-64, which is higher than the kingdom's percentage of 61.9%.³⁰⁸ The population growth rate in GIM is 2.8 (2017). The average number of family members in GIM is 4.9 individuals per family, higher than the national average of 4.8 individuals/family.³⁰⁹

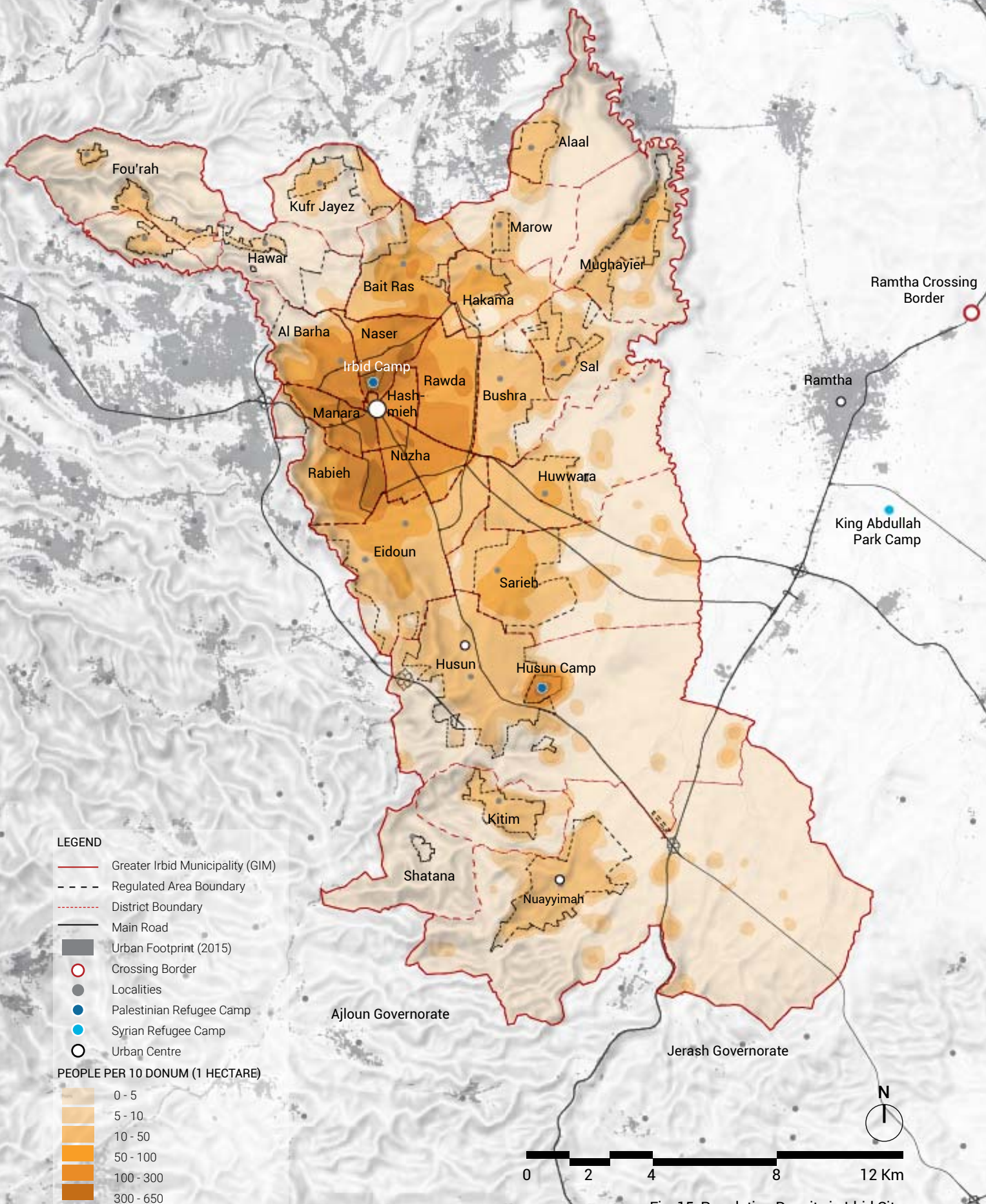
The population density within GIM is 12,797.5 people/km².³¹⁰ The highest population density is concentrated around the Irbid Palestinian refugee camp in the city centre, which has a population density of 65,000 people/km². The area where Husun Camp (known locally as Martyr Azmi Al-Mufti camp)³¹¹ is located also has one of the highest population densities in GIM. While these camps were intended to be temporary initially, they have developed as permanent urban areas over time.

The lower population density within GIM is Fouara and Hour districts towards the north, as well as Shatana and Al Naima districts in the south of GIM. As one moves further out of the centre, the population gradually decreases, leading to a decrease in the population density.

The number of registered Syrian refugees in UNHCR within GIM's boundary is estimated to be 180,438.³¹² However, the actual number of Syrians residing within GIM's boundary exceeds 200,000.³¹³ The closure of the borders with Syria between 2015 and 2021 has slowed down the refugee population growth rate, and the only change observed is the movement of refugees from rural settings to urban areas for better livelihood opportunities.³¹⁴



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



LEGEND

- Greater Irbid Municipality (GIM)
- Regulated Area Boundary
- District Boundary
- Main Road
- Urban Footprint (2015)
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre

PEOPLE PER 10 DONUM (1 HECTARE)

	0 - 5
	5 - 10
	10 - 50
	50 - 100
	100 - 300
	300 - 650



Fig. 15: Population Density in Irbid City

Migration Context

Within Greater Irbid Municipality, 36% of the population are non-Jordanians; this is broken down to: 3% Palestinians, 21% Syrians, <1% Iraqis, with the remaining 11% of other nationalities, including Yemeni and Egyptians.³¹⁵

The demographic dependency of GIM reached 66.7%, which is higher than the governorate rate of 66.4%, and the national level at 61.4%.³¹⁶ This highlights the importance of preparing plans that will meet the needs of the population in terms of education, health, open and recreational spaces, as well as job opportunities.

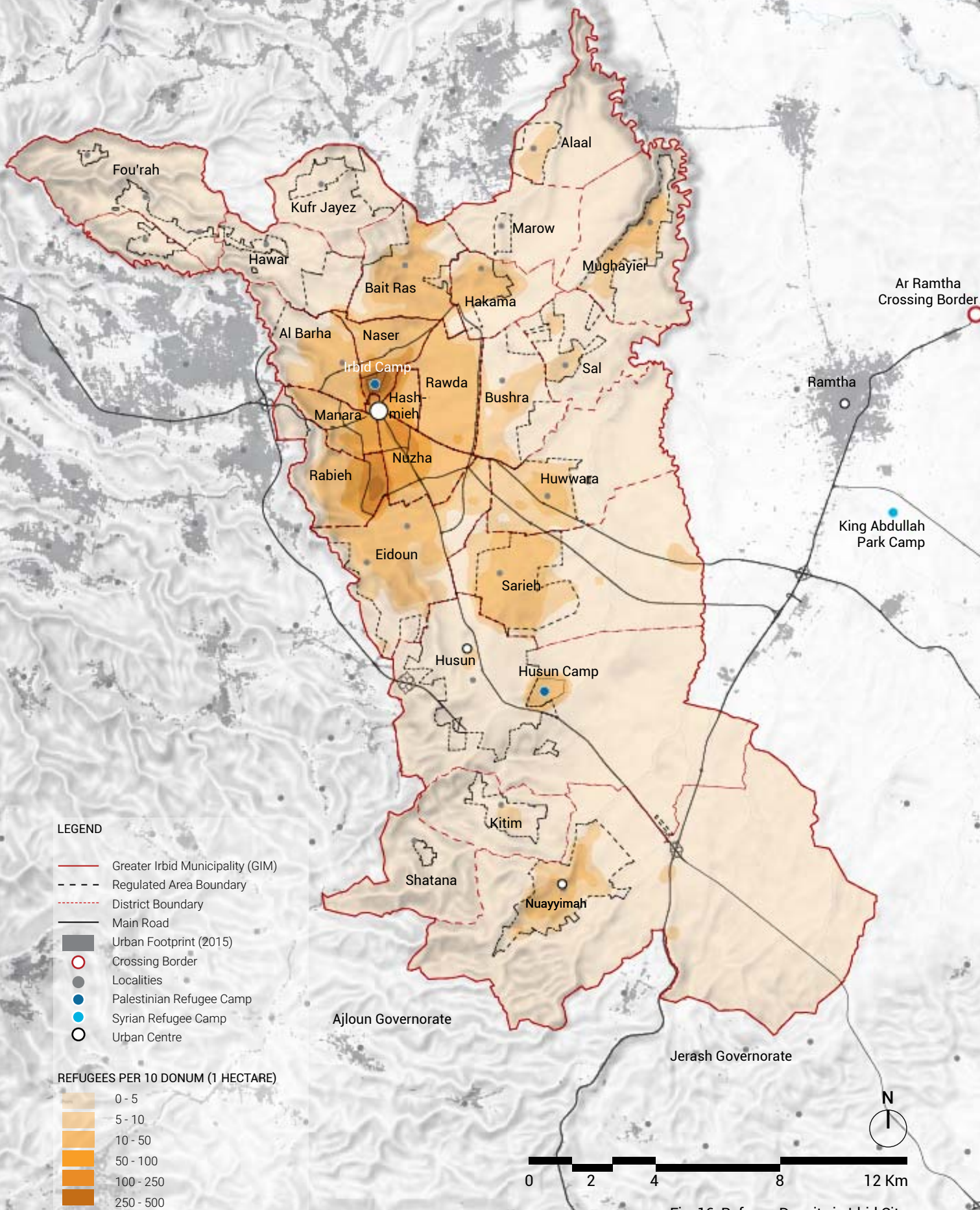
Within GIM, there are two main Palestinian camps, hosting more than 55,916 refugees:³¹⁷

- Irbid Camp, which was established in 1951, is located in the centre of the city to host 6,926 inhabitants. It now hosts more than 29,000 refugees, indicating a potential increased demand on existing infrastructure.
- Husun Camp (known locally as Martyr Azmi el-Mufti camp)³¹⁸, which is located at the southern area of GIM, was established to host 12,500 refugees. It now hosts more than 26,800 refugees.³¹⁹

Among the most important challenges facing the Palestinian camps are the weak infrastructure, hygiene, health and education services in general. This is further compounded by high rates of poverty and health issues; 16% of Irbid Camp residents suffer from chronic health issues, and only 56% have health insurance.³²⁰ In Husun Camp, challenges also include unemployment, where 18% of the camp's population are unemployed, and 23% have an income below the national poverty line.³²¹

There is one official refugee camp located at the eastern side of Irbid Governorate outside of GIM's administrative boundaries named King Abdullah Park. As such, the influx of Syrian refugees into Irbid has been felt across various parts of the municipality, whereby the Syrian refugees live in different residential neighbourhoods. Due to the close proximity of Irbid to Syria, many of the refugees were reunited with relatives living in Jordan, and blended into society. The social and demographic changes resulted in the transformation of the city, where some parts felt and looked like Syrian cities, with its shops and restaurants.³²²

There are some other key factors that assisted in the integration between Syrians and Jordanians since 2012: 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.³²³ However, some factors hindered the integration, including spatial and infrastructural factors; the lack of public spaces, overwhelmed education system, and competition on opportunities such as jobs and housing.³²⁴



- LEGEND**
- Greater Irbid Municipality (GIM)
 - Regulated Area Boundary
 - District Boundary
 - Main Road
 - Urban Footprint (2015)
 - Crossing Border
 - Localities
 - Palestinian Refugee Camp
 - Syrian Refugee Camp
 - Urban Centre

REFUGEES PER 10 DONUM (1 HECTARE)

	0 - 5
	5 - 10
	10 - 50
	50 - 100
	100 - 250
	250 - 500

Fig. 16: Refugee Density in Irbid City

Urban Growth

Irbid was known since 1884, during the Ottoman period, when the city had approximately 250 houses and a population of 1,300 inhabitants.³²⁵ Irbid City has grown from a town of 0.28km² in 1924 to a city of 359.27 km² to date, with an urban area of 74.2km².³²⁶

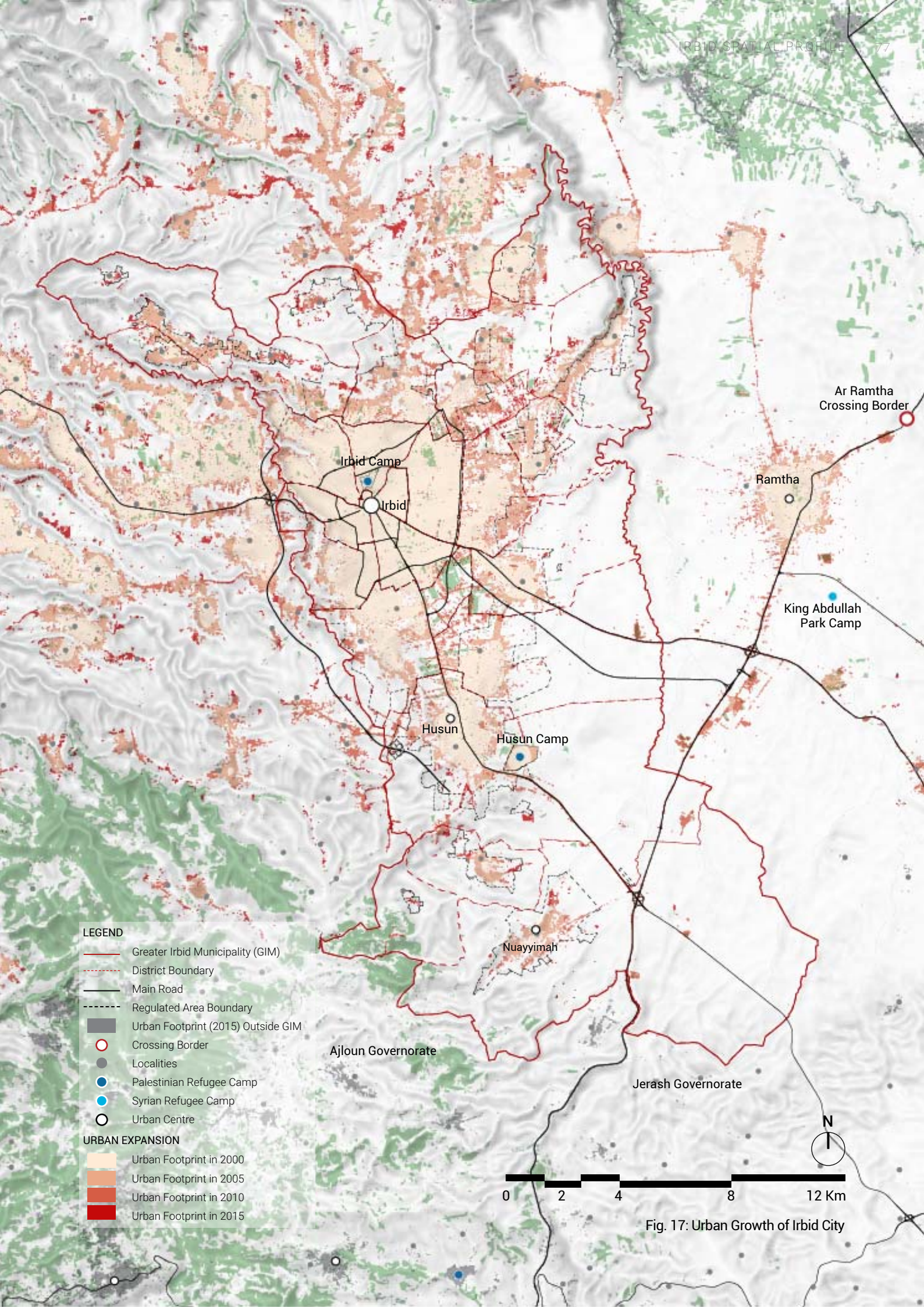
Irbid has witnessed various migration movements, with the largest waves of refugees arriving to Irbid being the Palestinians, who arrived in 1948 and 1967. These migration movements have profoundly shaped the urban characteristics of the city, transforming it from a village to a medium-sized city. While refugees initially resided in refugee camps, the areas developed informally to become part of the urban fabric.

Irbid has also attracted rural inhabitants seeking economic opportunities and better access to urban services. This internal displacement, along with the influx of refugees has led to a significant increase in the city's population, adding more pressure on the municipality to provide services within their limited capacities and resources.

With all these factors in mind, the city of Irbid has witnessed rapid population growth. The population growth rate of GIM was 2.8 in 2017, higher than the growth rate of the Kingdom and the governorate, which are both at 2.6.³²⁷

The radial plan of the city encouraged the growth outwards, with topography playing a major role. The city's growth towards the south was triggered by the establishment of the Yarmouk University in 1976, while the growth towards the east was driven by need to provide quality housing for the growing population. Areas towards the north and the west were less attractive as they were limited by the topography.³²⁸

Planned areas within GIM are scattered to accommodate the haphazard developed urban areas, and to provide municipal services to the residents. This reflects the fact that planning is practiced at the municipality as a reactive measure, and not as a proactive one, whereby planning follows the actual urban growth in the city.



LEGEND

- Greater Irbid Municipality (GIM)
- District Boundary
- Main Road
- Regulated Area Boundary
- Urban Footprint (2015) Outside GIM
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre

URBAN EXPANSION

- Urban Footprint in 2000
- Urban Footprint in 2005
- Urban Footprint in 2010
- Urban Footprint in 2015

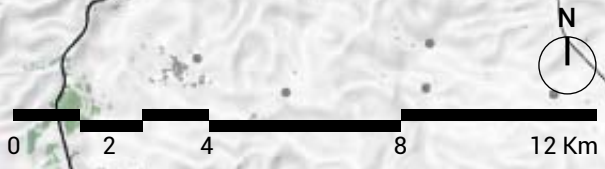


Fig. 17: Urban Growth of Irbid City

Land Use

Greater Irbid Municipality's footprint reached 356 km² in 2021. The significant spatial growth of urban areas has led to an increased demand for housing due to the influx of refugees and migrants, as well as rural-urban migration.³²⁹

The majority of land in Irbid is privately owned; GIM owns only 30 km² of land within its boundaries, where only 1% of this land is built-up and one third is Haraj lands, which are forest-covered lands owned by the national government (treasury).³³⁰

Around 76% of the land within GIM boundary is unplanned, while planned areas within GIM cover 22km², constituting 22% of GIM's administrative area. Agricultural lands comprise the highest share of lands within GIM's unplanned area, constituting 52% of the total land coverage.

In terms of land use distribution within planned areas of GIM, residential land use comprises the highest percentage of planned area, at 87.9 %. Green and open spaces, on the other hand, constitute around 1.2% of planned areas. Industrial land uses also remain low within the municipality', constituting 0.7% of land use.

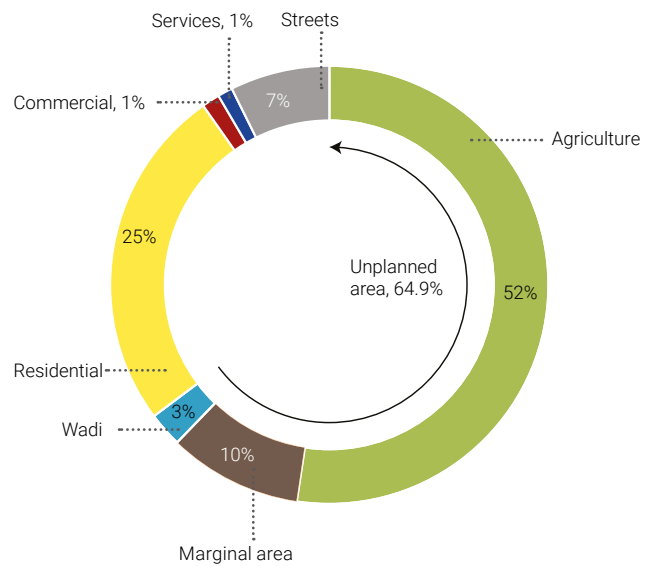
It is important to note that the residential zones of Jordan are categorised into seven main types: Residential types A, B, C, and D, as well as agriculture residential, rural residential, and residential with special regulations. Residential type A category represents the least affordable typology while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

Commercial land use in GIM follows the street network, and specifically main roads. The pattern indicates urban expansion towards the east, northeast and south of the municipality.

Palestinian refugee camps remain excluded from municipal land use and development plans, despite the fact, that they are now permanent and well-established communities within the social and urban fabric of Irbid, in which their shelters are connected to municipal services and inhabitants pay service tax.³³¹ Although land use layers for Palestinian refugee camps are often missing, most of the camp's land use is considered residential, as land plots were granted by the government and fully designated to be used for shelter when the camp was established.³³²

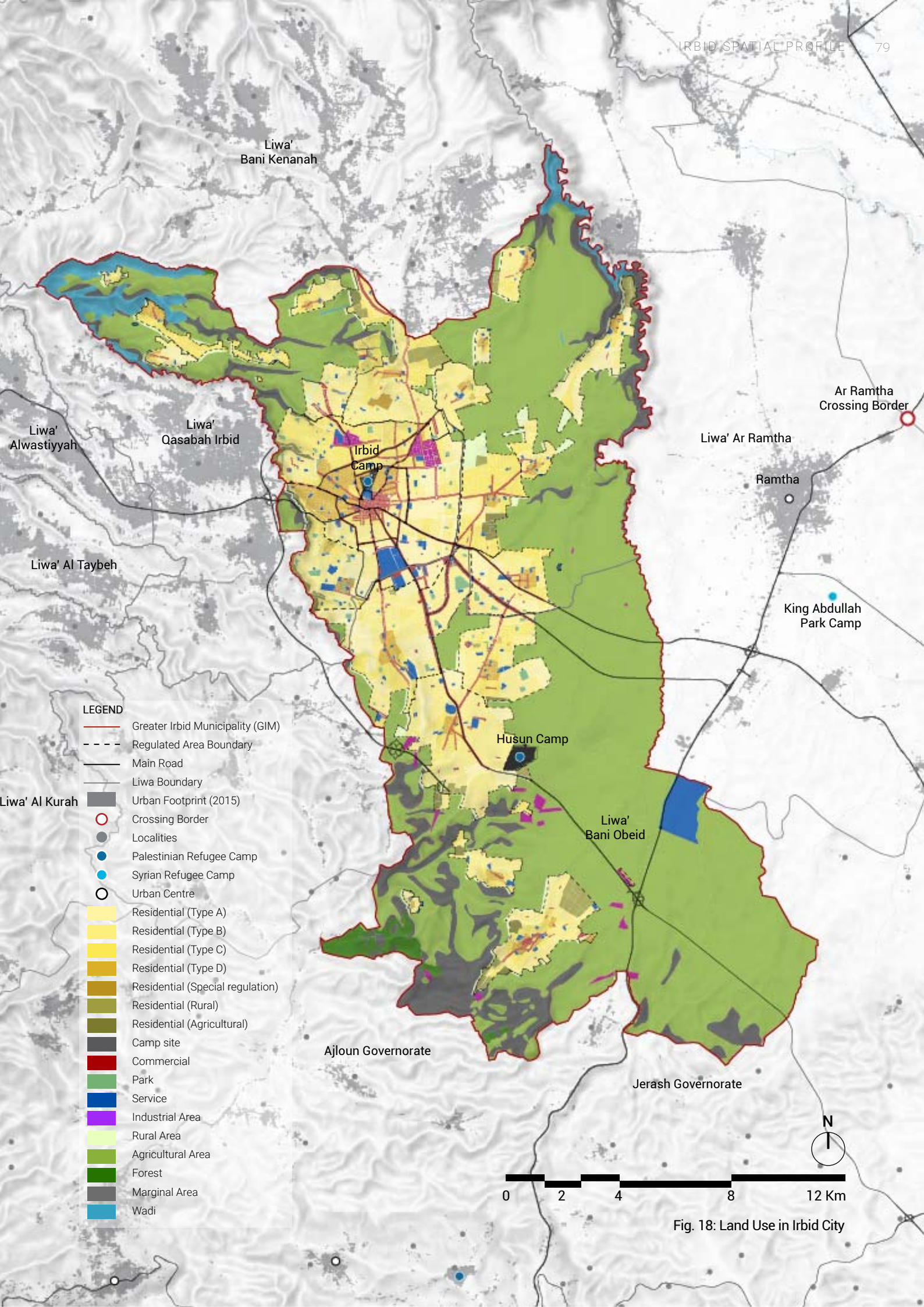
In terms of the location and integration of the Palestinian camps, Irbid camp is now fully merged with the residential areas of the city. Husun camp, on the other hand, is

more detached from the urban centre of the city as it is located outside the planned area boundary bordering the agricultural-designated lands.



Classification of land in GIM Administrative Boundary (MoLA, 2007)





- LEGEND**
- Greater Irbid Municipality (GIM)
 - Regulated Area Boundary
 - Main Road
 - Liwa Boundary
 - Urban Footprint (2015)
 - Crossing Border
 - Localities
 - Palestinian Refugee Camp
 - Syrian Refugee Camp
 - Urban Centre
 - Residential (Type A)
 - Residential (Type B)
 - Residential (Type C)
 - Residential (Type D)
 - Residential (Special regulation)
 - Residential (Rural)
 - Residential (Agricultural)
 - Camp site
 - Commercial
 - Park
 - Service
 - Industrial Area
 - Rural Area
 - Agricultural Area
 - Forest
 - Marginal Area
 - Wadi



Fig. 18: Land Use in Irbid City

Local Economic Activity

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

Commercial Sector:

GIM is strategically located on a major trade route, with a high number of retail activities, which attracts daily commuters from neighbouring towns.³³⁶ Accordingly, the commercial sector is the main source of employment.³³⁷ Additionally, GIM has vital economic centres distributed across the city, including, but not limited to, the city centre market (Al Souq), Yarmouk University street, Hashmi street, Petra and Wasfi Al Tal streets, and Irbid-Husun highway. Most of the economic activities within the city are linked to retail, gastronomy, and IT.

Education Sector:

The education sector is the second highest employer in GIM.³³⁸ One of the main universities that has influenced the economic and urban development of the Irbid is Al Yarmouk University, with a total of 33,334 students.³³⁹ Additionally, a main public university, located in Ramtha at the edge of GIM (on the southeastern side), is the Jordan University of Sciences and Technology, with a total of 23,500 students.³⁴⁰ Moreover, the city has private universities and university colleges.³⁴¹ The presence of universities in and around Irbid makes it a dynamic city and directly assists in job creation. Furthermore, commercial activities near universities, such as in neighbourhoods around Yarmouk University, have thrived.³⁴²

In addition to universities, public and private schools, including kindergartens, cater to the entirety of the city's population, both host and refugee communities. These educational institutions provide GIM with a wide range of professions through the degrees they offer in medicine, engineering, IT, social sciences, and others, which attracts economic interactions at the city level.

Industry Sector:

Cyber City has been built right off the Ramtha-Amman highway and is adjacent to the Jordan University of Science and Technology.³⁴³ Due to the unrest in Syria, it has been used to host refugees until 2016.³⁴⁴ Cyber City, operating mainly within the garment industry,

employs 2,500 non-Jordanian workers, with on-site accommodations, as well as approximately 1,000 Jordanian workers.³⁴⁵

Another industrial area is the Irbid Development Area, located 20 km to the east of GIM with an area of 1.8 km².³⁴⁶ Near the Jordan University of Science and Technology, this Development Area has attracted six projects with an investment value of around JD 38 million.³⁴⁷ The existing projects in the area have created around 1,455 jobs.³⁴⁸ It has five main target sectors including service industries, support, scientific research and development, healthcare, housing, and multiple commercial services.³⁴⁹ Additionally, GIM has several industrial areas for car repair and services, such as the Irbid and Huwara industrial areas.

Agriculture Sector:

Agriculture activities constitute an important part of GIM's economic activities. The agriculture sector significantly increased and began being considered as an altered economic activity with the influx of Syrian refugees into the city. Nevertheless, the development of the Irbid Development Area, increasing urban sprawl, and the shortage of water, have put the agriculture sector under threat. Accordingly, this sector needs planned urban development as well as high-tech irrigation systems and techniques to preserve its status within the economy.³⁵⁰

Tourism Sector:

As a city, Irbid has few destinations to attract tourism, but rather acts as a stop on the way to the better-known neighbouring destinations within the Governorate.³⁵¹ Nevertheless, it has many hotels that serve international students and visitors.

Home-Based Businesses:

Home-based businesses are prevalent in GIM, including trades people, farmers, as well as professionals and service providers operating from home-based businesses. A balance is required between export-based and population-serving employment.³⁵² Furthermore, the Unit of International Development and Planning has endeavoured to ensure social cohesion, as per the Jordan Response Plan, by focusing on serving the local communities with a sustainable vision. Among the Unit's several projects funded by international bodies, was the training for writing business proposals, which was given by the Lutheran Organisation and attended by refugees and locals.

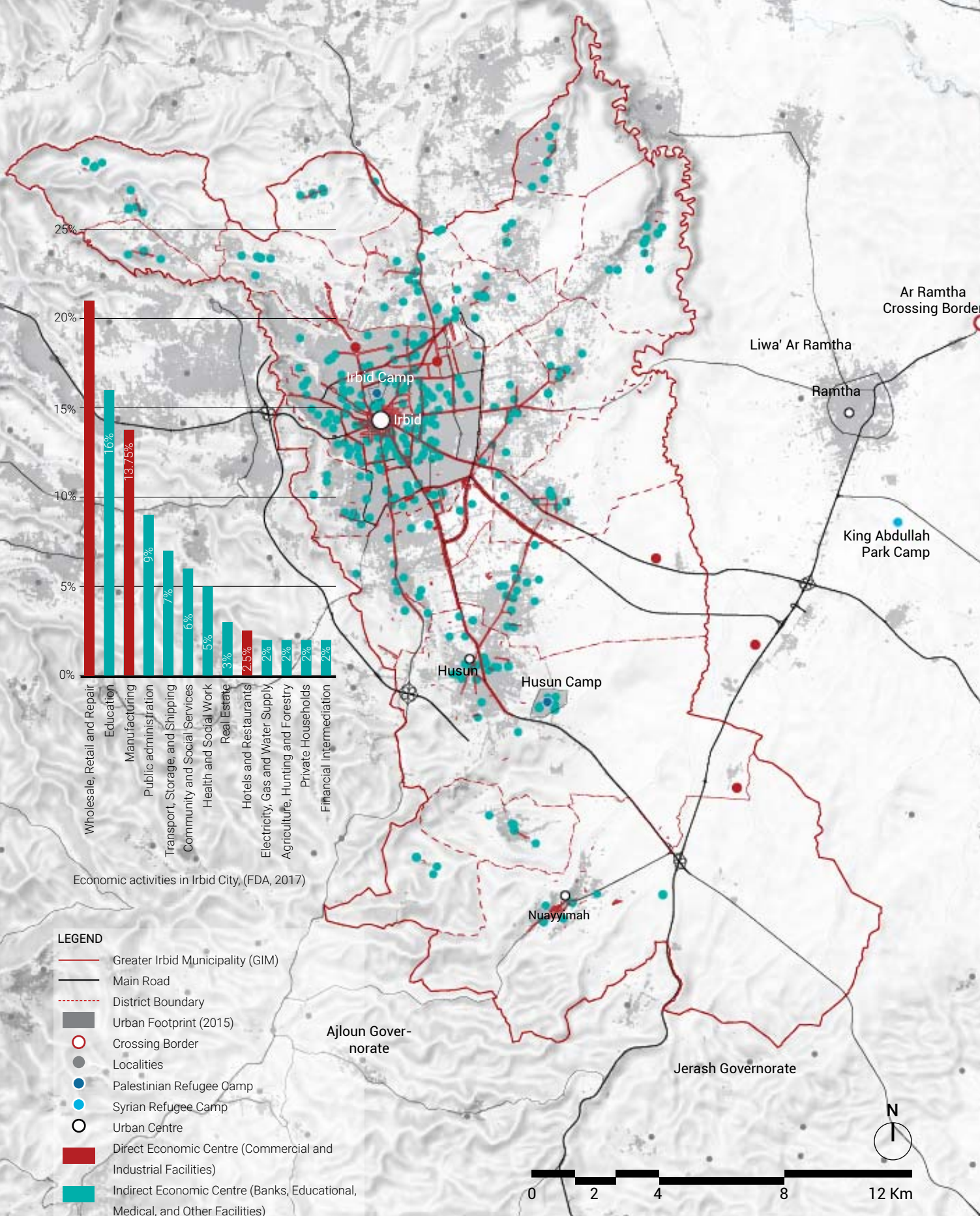


Fig. 19: Local Economic Activities in Irbid City

Natural Hazards

Irbid Governorate is vulnerable to various natural hazards, which is evident through geo-hazardous events, such as the active tectonic movements - earthquakes - in the Northern Aghwar, an area where the Asian and African tectonic plates meet.³⁵³

Additionally, the hydrological and meteorological events, caused by drastic climate change occurrences, account for 97% of the national disasters.^{354,355} Such hydrological and meteorological events are associated with wide variations in temperatures during the summer and winter and have resulted in extreme weather events such as droughts, heat waves, storms, and flash floods. The spatial distribution of flood hazard map has shown that the districts of Ramtha are the most vulnerable areas to floods due to high rainfall intensity.³⁵⁶ Additionally, GIM is within the medium class of flood hazards. Therefore, there is a need to design and implement short-term resilience interventions to increase the adaptability of these vulnerable areas to floods, hence reducing the disaster probability. However, the influx of refugees from neighbouring countries in addition to the already-weak infrastructure and limited natural resources have significantly burdened the efforts to enhance resilience and reduce disaster risk at governorate and city level.³⁵⁷

The map illustrates the drought occurrences at the city level in 2016, whereby Liwa Qasabah Irbid (north of GIM) is moderately dry, while Liwa bani Obeid is mildly dry.

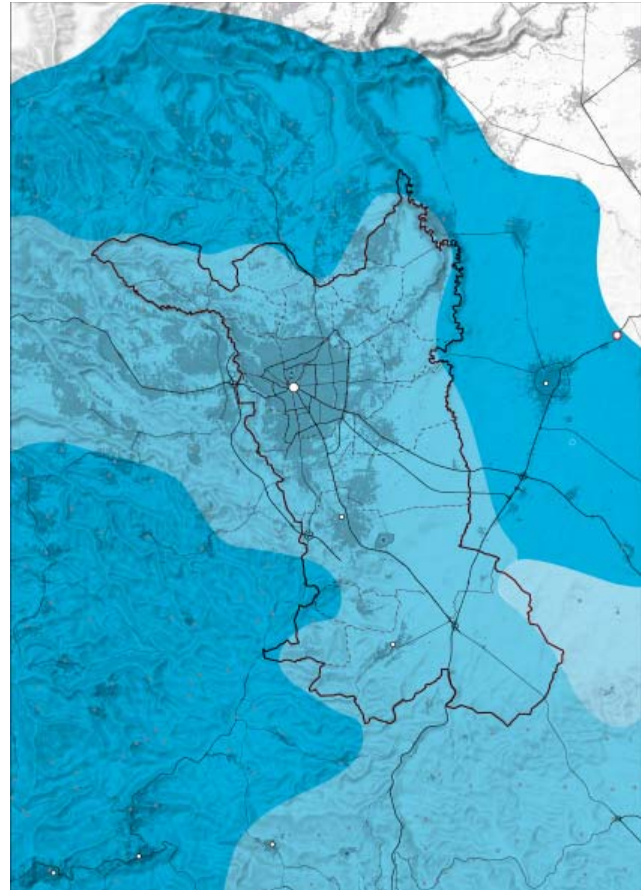
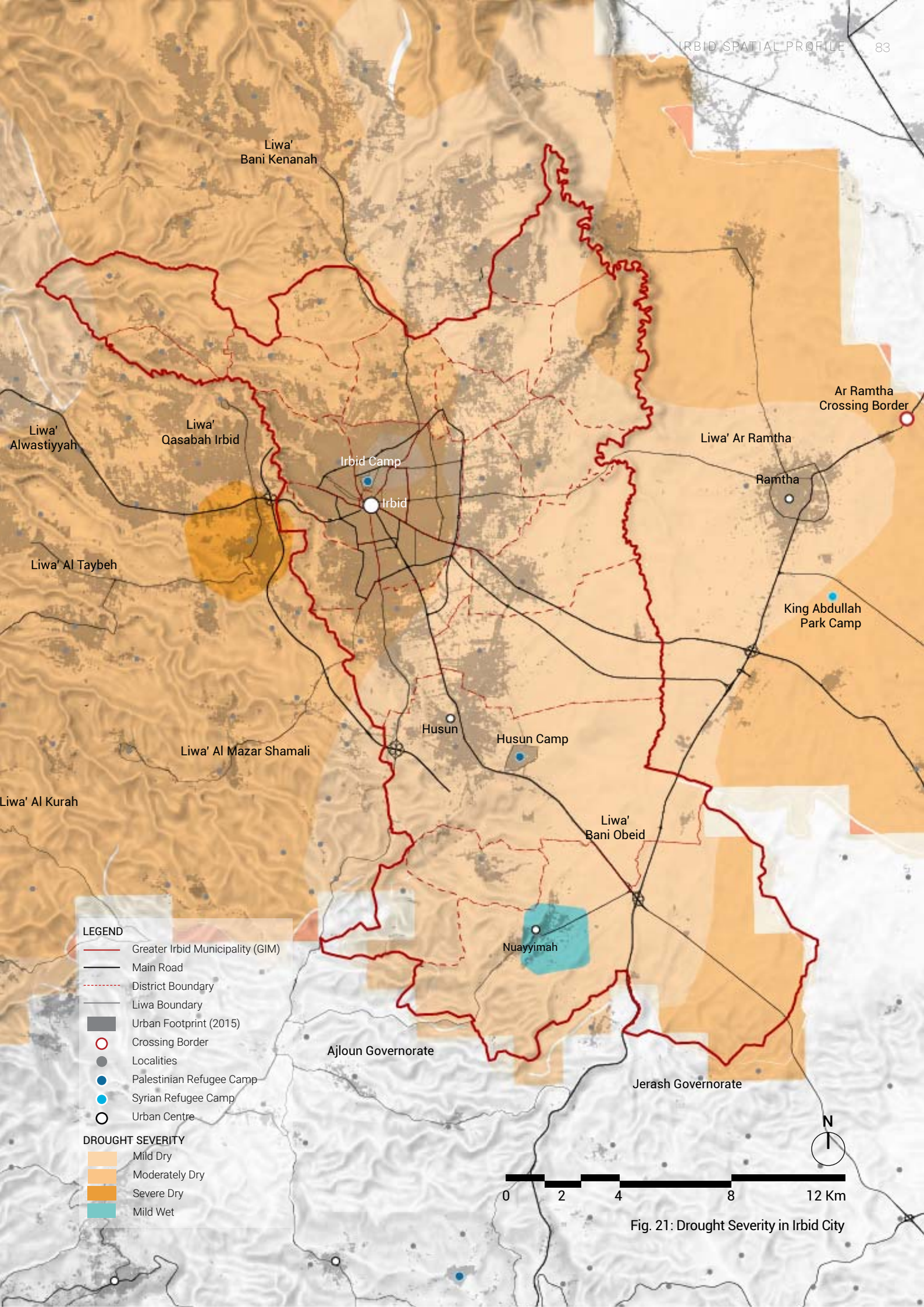


Fig. 20: Flood Hazard Classes in Irbid City

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

LEGEND

— Greater Irbid Municipality (GIM)	● Syrian Refugee Camp
— Main Road	 Urban Centre
- - - - - District Boundary	
— Liwa Boundary	
 Urban Footprint (2015)	
 Crossing Border	
● Localities	
● Palestinian Refugee Camp	
	FLOOD HAZARD CLASSES
	 Low
	 Medium
	 High



LEGEND

- Greater Irbid Municipality (GIM)
- Main Road
- District Boundary
- Liwa Boundary
- Urban Footprint (2015)
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre

DROUGHT SEVERITY

- Mild Dry
- Moderately Dry
- Severe Dry
- Mild Wet



Fig. 21: Drought Severity in Irbid City

Transport and Mobility

Greater Irbid Municipality is the strategic centre of the Irbid Governorate due to its administrative centre and close proximity to international borders. On a daily basis, more than 145,000 people commute between Amman and Irbid.³⁵⁸ The latest data collected is from 2008, and the numbers are estimated to be much higher.

There are plans to develop a ring road around Irbid City, which has been divided into several phases;³⁵⁹ two phases have been completed, with the total length of the completed areas to be around 18km out of 43km.³⁶⁰ The rest of the ring road was originally planned to be completed by 2020,³⁶¹ however, there have been delays in the construction, and work is still ongoing. It has also been noted that the constructed road lacks safety measures, and requires further work to ensure safety.

Irbid faces many challenges in the mobility sector; commuters in Irbid 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.

Consultations with residents while developing the Irbid 2030 Plan revealed that 25% of participants identified transport as the main area of concern, with the main issues being congestion, lack of parking spaces, and access to the public transport network.³⁶²

The increase in population density and lack of road network planning is a major factor for the increased traffic congestion, with a rapid increase in car ownership since 1990s, where in 1999 the number of vehicles in Irbid was around 28,907 and in 2017, the number reached 56,579.^{363, 364} The narrow roads within the city and lack of parking spaces coupled with poor parking management has led to haphazard parking in the city centre, increasing congestion.³⁶⁵

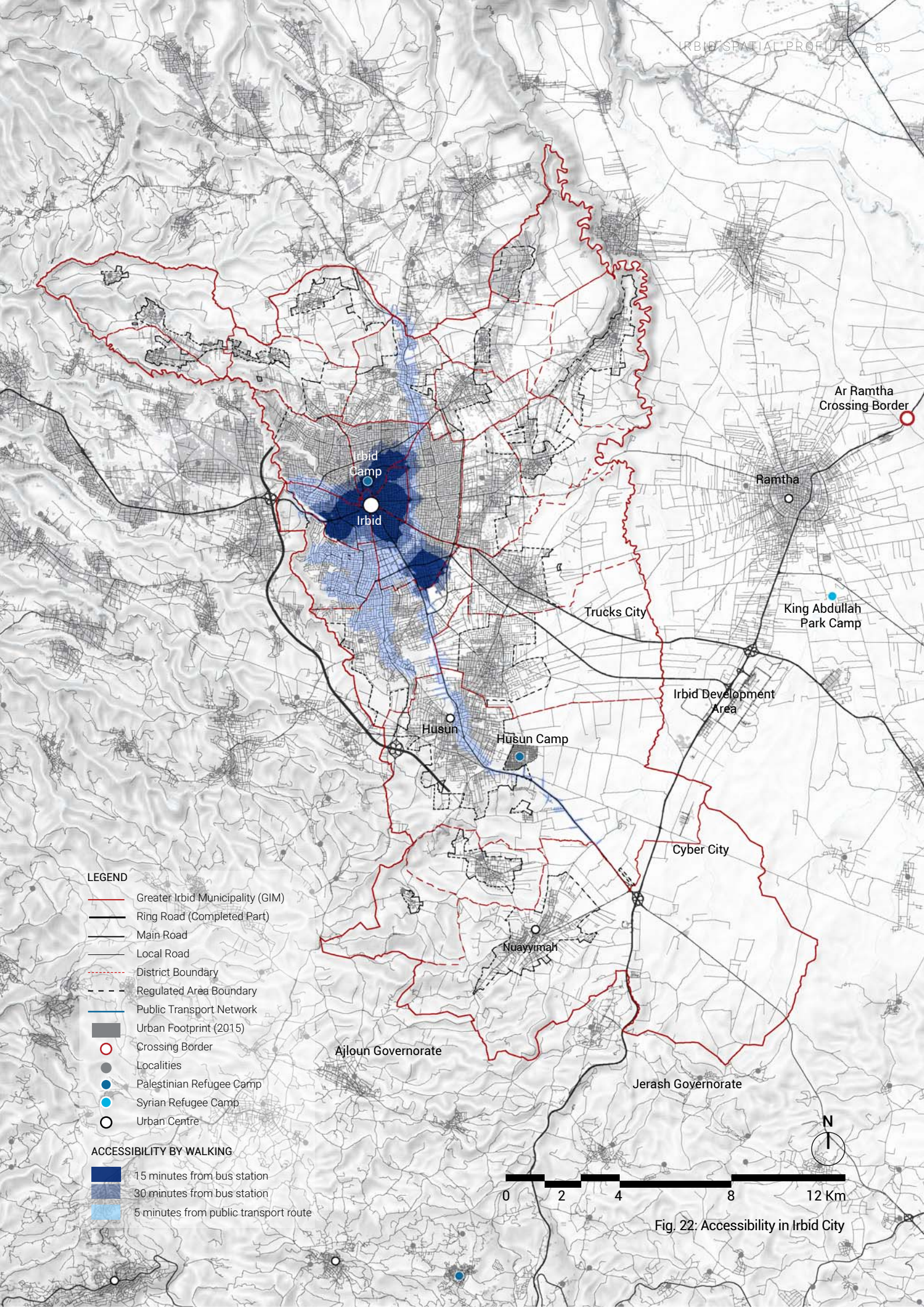
GIM does not have a railway network, with the micro-buses being the only available means of public transport.³⁶⁶ GIM has its own privately-owned bus networks that are regulated by the Land Transport Regulatory Commission (LTRC), which regulates the routes in and out of the city. In 2021, there were 677 shared taxis/service, 1,800 taxis, 932 medium buses, and 205 large buses.³⁶⁷ There are six main

stations in Irbid:³⁶⁸

- The Central Terminal Station, or New Amman Station is located 3km southeast of the city centre, with routes leading to the eastern and southern parts of the municipality, as well as neighbouring governorates and other governorates in the centre and south of Jordan.
- North Bus Station is located next to Irbid refugee camp, with routes leading to the northern region of the Governorate.
- New Aghwar Bus station is located 1.5 km from the centre with routes leading to the western region of the Governorate
- Old Aghwar Bus station is located in the city centre with routes leading to the adjacent towns west of the municipality
- Sheikh Khalil Bus station is located near the city centre, with routes leading to the southern parts of the Municipality, including Azmi Al Mufti (Husun refugee camp).
- Sal Bus station has routes leading to the eastern districts of the municipality and Ramtha City.

The north and centre of GIM have access to the public transportation network. However, other districts within the city are not as adequately served by the public transportation network, such as: Al-Huwwara, Al-Sareh, Bushra, Al-Rawda, Al-Bareha, Al-Naser, Al-Husun, Hoor, Fowa'ara, Hekma, Sal, Kafr Gayez, Al-Mghayer, Al'al, Kitim, Shatana, Al-Na'aymah, and Maru districts.

The lack of affordable transport options to enable mobility between places of residence and workplace and medical facilities has hindered accessibility to these facilities, and particularly for refugees.³⁶⁹ Only 2% of Syrians in Irbid own a car;³⁷⁰ many of the Syrian refugees in Irbid have their own cars which they drove from Syria, but most of them cannot maintain them if they break down.³⁷¹ The most efficient means of transport for lower income groups of Syrian refugees is carpooling.³⁷²



LEGEND

- Greater Irbid Municipality (GIM)
- Ring Road (Completed Part)
- Main Road
- Local Road
- - - District Boundary
- - - Regulated Area Boundary
- Public Transport Network
- Urban Footprint (2015)
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre

ACCESSIBILITY BY WALKING

- 15 minutes from bus station
- 30 minutes from bus station
- 5 minutes from public transport route



Fig. 22: Accessibility in Irbid City

Planned Infrastructure Investments

Major Urban Development Projects

The City Centre Renovation and Revitalization Project³⁷³ began in 2016, aiming to integrate heritage, transport and mobility, public spaces, markets, and infrastructure, which affect the socio-economic value of the city centre and residents. In its detailed design phase, the project focuses on downtown Irbid, while the architectural and transportation studies will encompass larger scales. In addition to that are the New Regional Market project and the upgrading of the Central Market of Irbid. Technical drawings have been completed for the former, but donors are still being sought to finance the construction, while the upgrading of Central Market of Irbid was funded by the AFD in 2016.³⁷⁴

Major Transportation and Urban Mobility Projects

To enhance urban mobility, GIM has developed various agreements with several entities, such as the LTRC, CVDB, private and external donors. Currently, there is a proposed Local Bus Reform Project in Irbid City, which is in the final stage of study development and is funded by EBRD. The project proposes seven new routes to access unserved areas with 39 new buses, that will be operated by the private sector. The project aims at enabling GIM to offer reliable and modern bus services to the community and to improve the connectivity between terminals and public facilities within the city. GIM will be establishing a Bus Operating Company and providing infrastructure, while LTRC's role is to regulate bus services and licensing. The project is currently seeking donors to finance the construction phase.³⁷⁵

The Ring Road Completion project aims to build on the 1978 JICA project by completing the 2,600m road to the west of Irbid City, which is now under construction and aims to improve traffic, reduce congestion, and connect the north and south of the city.³⁷⁶ Furthermore, the renovation of bus stations, financed by LTRC, consists of the operational Irbid Main Bus Station and the planned New North Complex,³⁷⁷ which has been allocated land by GIM but is awaiting finance and design completion. There is a prospective unfunded project focusing on paid parking management and multi-level vertical parking locations in GIM, aiming to provide safe and orderly parking in commercial areas while reducing traffic jams and road accidents.³⁷⁸ Additionally, another unfunded planned project concerns building bridges and tunnels to serve the traffic axis extending along Prince Al-Hassan Street, from the intersection of Al-Hassan Sports City to its intersection with King Hussein Street.³⁷⁹

Major Water Management Projects

Financed by Yarmouk Water Company and Vinci, with a loan from the French Treasury for emerging countries (RPE -Réserve Pays Emergents), the rehabilitation of supply

networks and the improvement of energy efficiency of pump installation project will be collaboratively implemented by Egis and Vinci.³⁸⁰ The improvement of water and sanitation networks in GIM and Ramtha project will be a collaboration between AFD, KfW, MADAD, and NIF.³⁸¹ Furthermore, financed by the AFD, the European Bank of Investment, and NIF, and supervised by a consortium led by Egis, the Wadi Al Arab Water System II project aims to abstract and treat water from the King Abdullah canal.³⁸²

Major Waste Management Projects

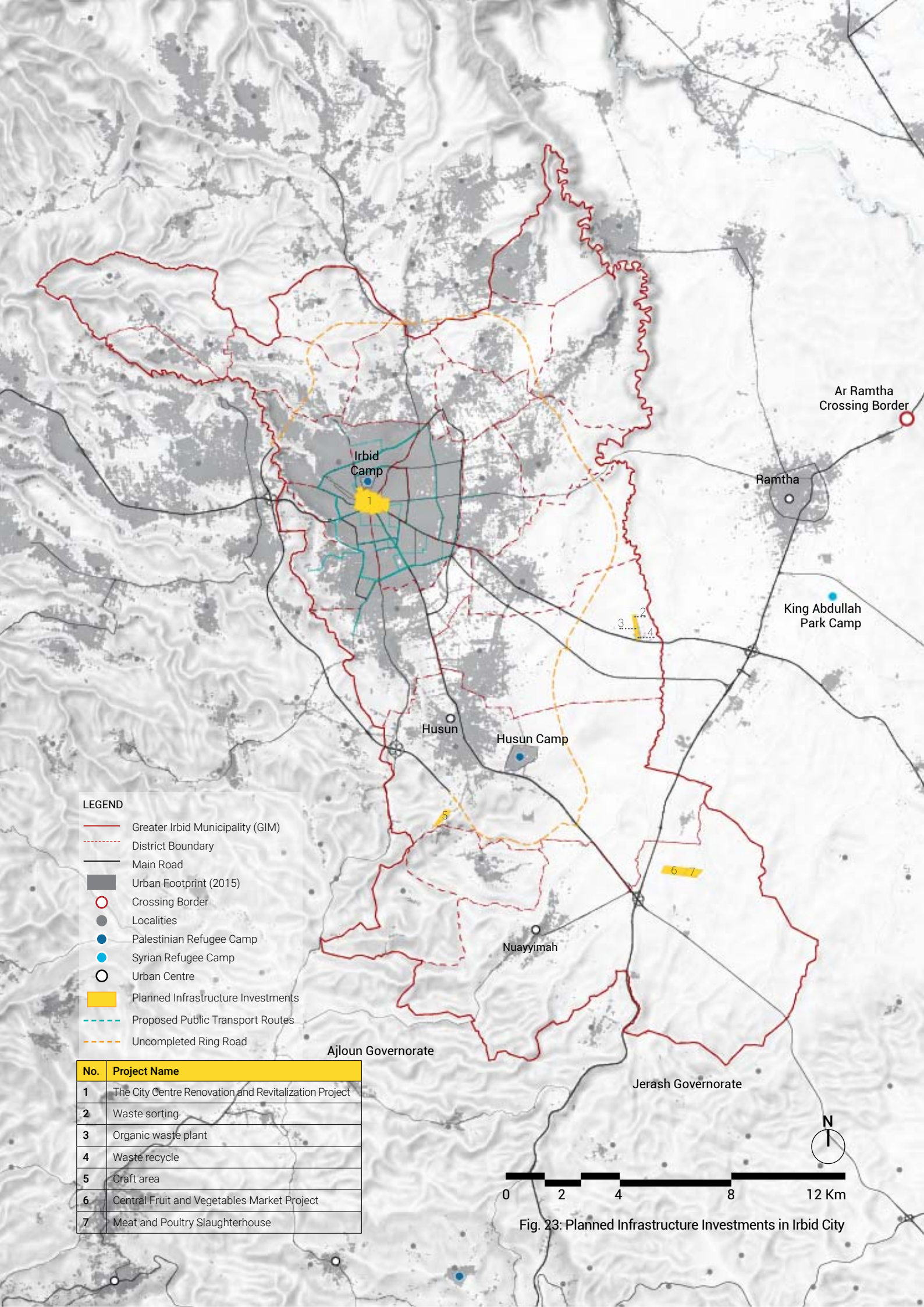
Led by GIZ, in cooperation with MoLA and MoEnv, the Waste to (positive) energy in Jordan 2015-2017 project will be implemented in 22 municipalities, including GIM.³⁸³ Additionally, this cooperation extends to support solid waste management in refugee-hosting communities 2014-2017 project.³⁸⁴ Meanwhile, the proposed WWTP at Wadi Shalalah is under construction to serve Eydon, Hoson, Sareeh, Howwara, Sal, Boshra, and the northeastern part of Irbid, with a total capacity of 15,000 m³/day.³⁸⁵

Climate Change and Sustainability Projects³⁸⁶

The European Union is funding the Cleaner Energy Saving Mediterranean Cities (CES-MED) project. The 2016 GIM Sustainable Energy and Climate Action Plan (SECAP) project encourages green solutions, such as electricity generation from waste energy (Biogas) and green buildings initiatives for municipal structures. In the short term, this aims to reduce the city's carbon footprint by 5% by 2020. In the long term, this aims to reduce the city's carbon footprint by 15% by 2030, specifically through projects, such as: the solar or energy-efficient street-lighting project (ongoing), the energy efficiency measures in the household sector project (under revision), and the wheeling PV plants (16 MWp is under progress) to fully cover the city's demand (proposed).

Storm-water Management Projects³⁸⁷

GIM is facing various challenges regarding storm-water management, including inadequate funding plans, whereby the current storm-water drainage network constitutes only 40% of GIM and its affiliated areas. Future projects include the completion and closure of valleys that permeate residential areas in GIM, most notably the Al-Husun, Al-Sareeh, Bushra, and Huwwara districts. A tender for box culverts will be issued for these areas, funded by grants and loans from development banks. Some storm-water drainage problems will be addressed through the proposed 2020 tender to treat some of the city's hot spots, including completing the closure of valleys in the Al-Hajwi Basin/Aydun area, and implementing rainwater drainage lines of various diameters in different streets and areas within Irbid City.



LEGEND

- Greater Irbid Municipality (GIM)
- District Boundary
- Main Road
- Urban Footprint (2015)
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre
- Planned Infrastructure Investments
- Proposed Public Transport Routes
- Uncompleted Ring Road

No.	Project Name
1	The City Centre Renovation and Revitalization Project
2	Waste sorting
3	Organic waste plant
4	Waste recycle
5	Craft area
6	Central Fruit and Vegetables Market Project
7	Meat and Poultry Slaughterhouse



Fig. 23: Planned Infrastructure Investments in Irbid City

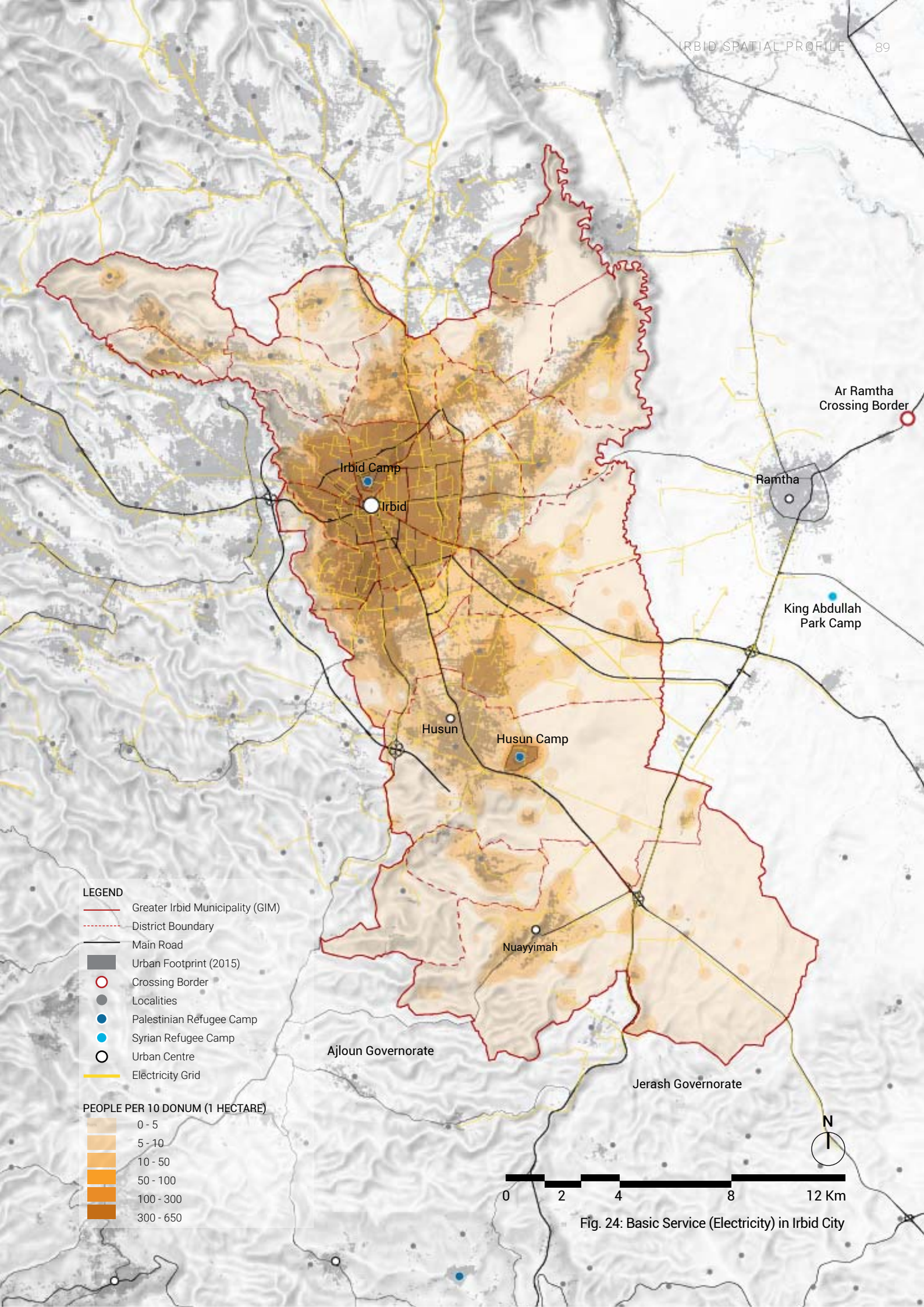
Access to Basic Services

Overall, Greater Irbid Municipality residential areas are well connected to basic service networks, including water, electricity, and telecommunication.

Access to Energy and Electricity

Irbid is supplied with electricity through four main substations, with a total capacity of 140MVA.³⁸⁸ The National Electricity Company is the main and only provider of electric power in GIM.³⁸⁹ The total number of subscribers in GIM reached 545,811 subscribers in 2018, distributed between the domestic, commercial, industrial, agricultural, governmental, and other sectors.³⁹⁰ The percentage of the population connected to the electricity network in the Liwa Qasabah Irbid has reached 99.9%, which is equal to the percentage on the governorate and the Kingdom levels.³⁹¹ Nevertheless, the challenges faced by the energy and electricity sector in GIM include:³⁹²

- High pressure on electrical transformers during the summer.
- Frequent electricity failures during the year and especially in the summer.
- Lack of alternative resources of electrical energy.
- High cost of projects in the mining sector.



- LEGEND**
- Greater Irbid Municipality (GIM)
 - - - District Boundary
 - Main Road
 - Urban Footprint (2015)
 - Crossing Border
 - Localities
 - Palestinian Refugee Camp
 - Syrian Refugee Camp
 - Urban Centre
 - Electricity Grid

PEOPLE PER 10 DONUM (1 HECTARE)

	0 - 5
	5 - 10
	10 - 50
	50 - 100
	100 - 300
	300 - 650

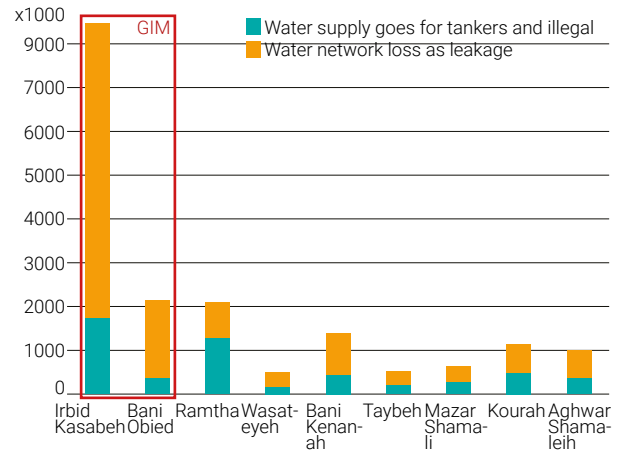


Fig. 24: Basic Service (Electricity) in Irbid City

Access to water

The continuous population growth represents a considerable challenge to the water supply system whereby water scarcity is one of the biggest fears and challenges at the Irbid City level. Meanwhile, water loss is considered high and accounts for 37.1%.³⁹³ The Yarmouk Water Company, with its branch located in GIM, provides water delivery services to GIM residents.³⁹⁴ The percentage of the population served by the water network within the boundaries of the GIM is estimated to be approximately 99%.³⁹⁵ Additionally, according to the Irbid 2030 Plan, the total water supplied to Irbid Governorate is about 39 MCM/a, with 17 MCM/a of this being supplied to the GIM, which hosts 43% of the total population of the governorate.³⁹⁶ It has been estimated that the projected water demand in GIM will be around 39 MCM/a in 2030, resulting in a shortage of about 22 MCM/a.³⁹⁷ In summary, the major challenges facing the water sector in GIM include:

- Old water networks that need rehabilitation.³⁹⁸
- Serving buildings in sprawl areas, which affects the water network efficiency by increasing water losses due to long distances.³⁹⁹
- Water does not reach homes periodically due to the weak water pumping networks, especially in the summer, forcing residents to buy drinking water.⁴⁰⁰
- Carrying out sewage excavations without prior coordination with the municipality, which leads to the breakage and damage of some lines carrying drinking water.⁴⁰¹



Non-Revenue Loss in Water, Sector Vulnerability Assessment - WASH (UNICEF, 2018)

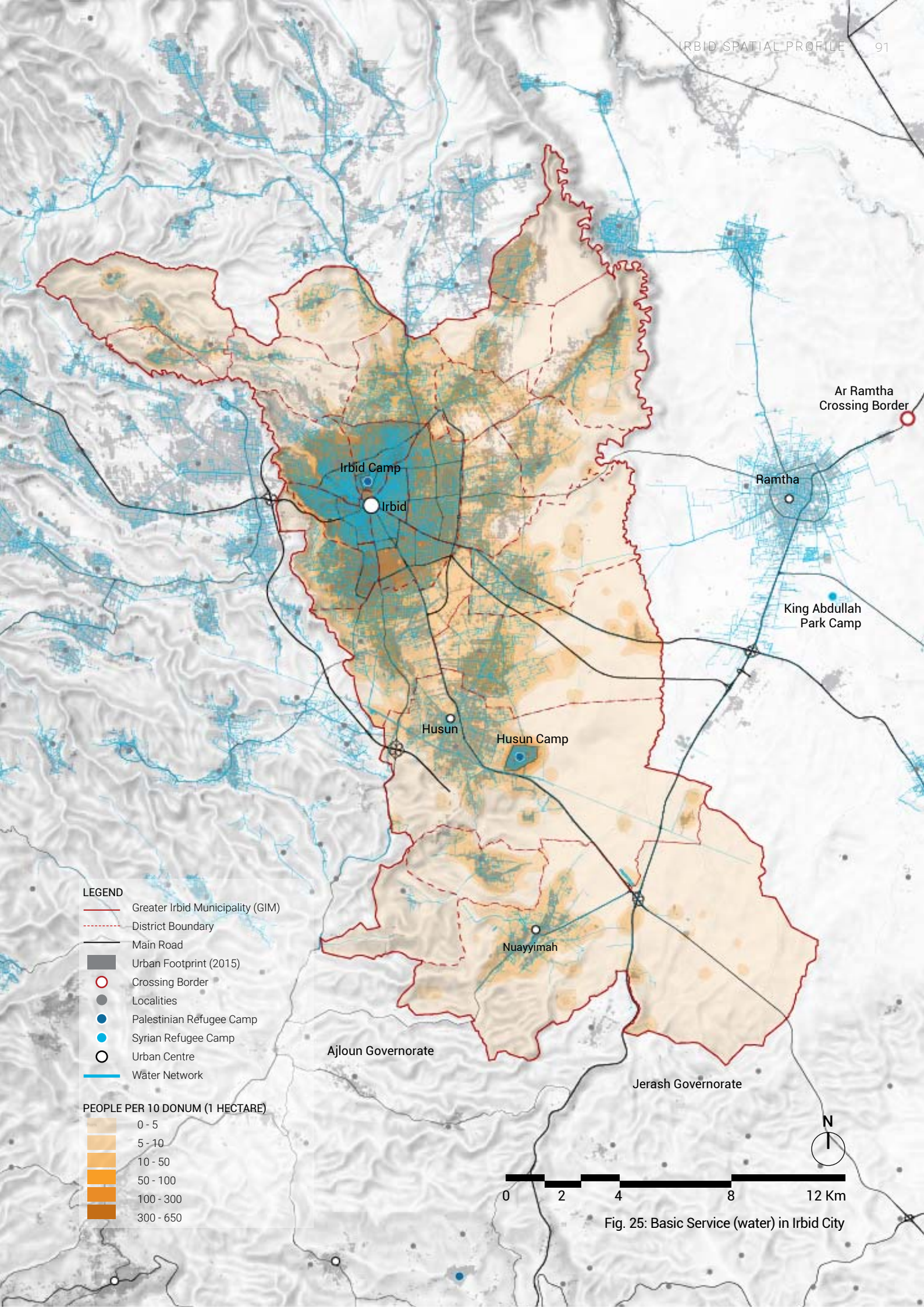


Fig. 25: Basic Service (water) in Irbid City

Access to Sewage Network:

80% of GIM's total population is connected to sewerage network,⁴⁰² despite several areas within GIM not being connected to the sewerage network. Wastewater generated in GIM is currently collected in three WWTPs: Irbid Central (Fo'ara) WWTP, Wadi Hassan WWTP, and Wadi Shallala WWTP.⁴⁰³

Solid Waste Management

The GIM is served with two waste transfer stations, Taqabbal and Trucks City, which transfer the compressed waste to Al Ekaider landfill located at the eastern part of Irbid Governorate in Mafraq governorate, 37 km away from the city centre.⁴⁰⁴ Although GIM is responsible for service provision, waste management services have recently been deteriorating, which has resulted in health issues and creating an uncomfortable environment for residents, many of whom cannot open their windows because of the spread of insects, rodents, and unpleasant odours, especially during the summer.⁴⁰⁵ In 2017, the total solid waste generation amount is around 600 tonnes/day.⁴⁰⁶ The average waste generation per capita for refugees residing in urban areas is 0.64 kg/day, and 0.52 kg/day in rural areas.⁴⁰⁷ This has added pressure to the solid waste management system. 85% of the waste generated at city level is formally collected and disposed⁴⁰⁸.

Storm-water Drainage Network

Since Irbid is flat, and as shown in the map, not all areas are served with storm-water drainage network. In general, storm-water drainage is considered a challenge in GIM.

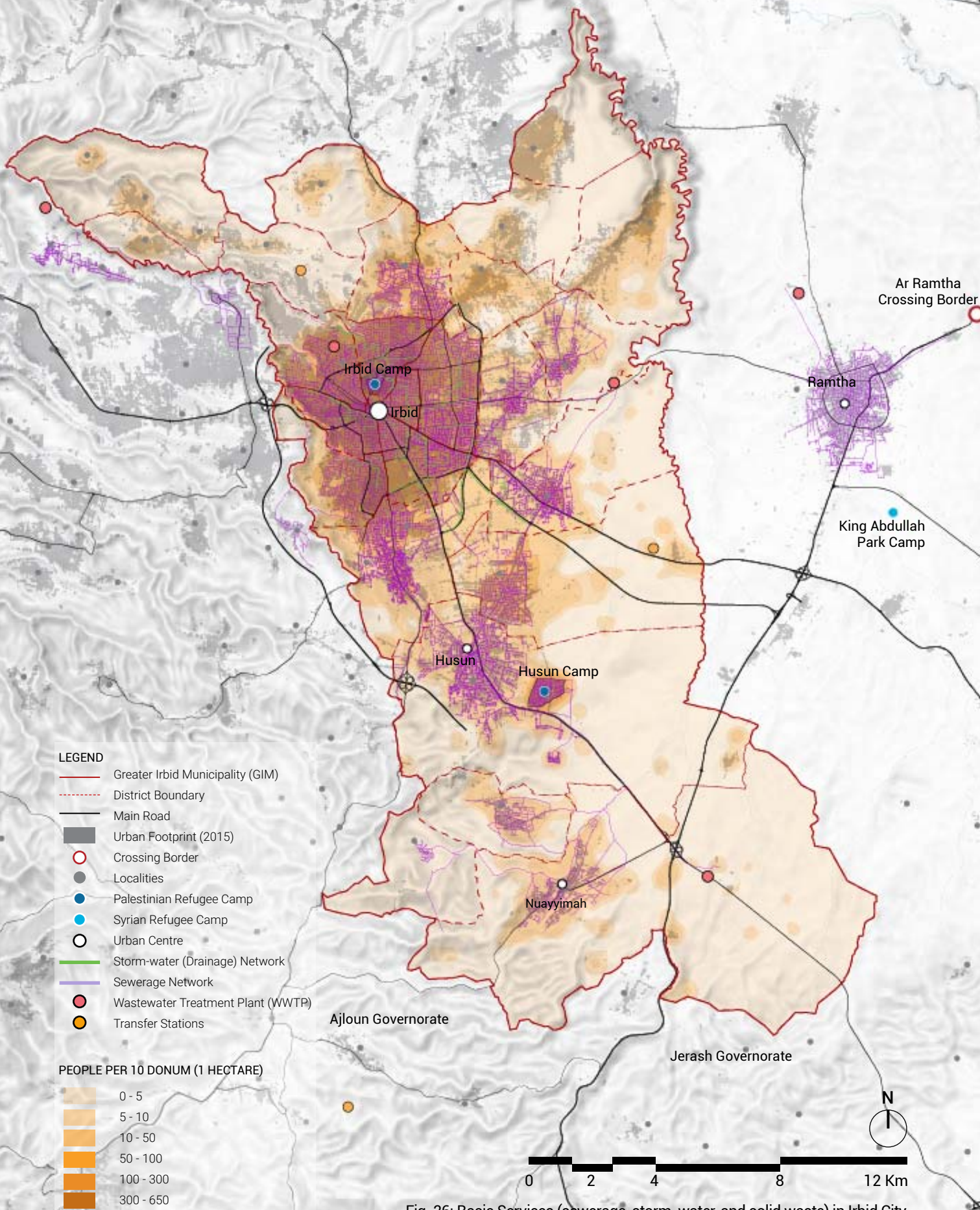


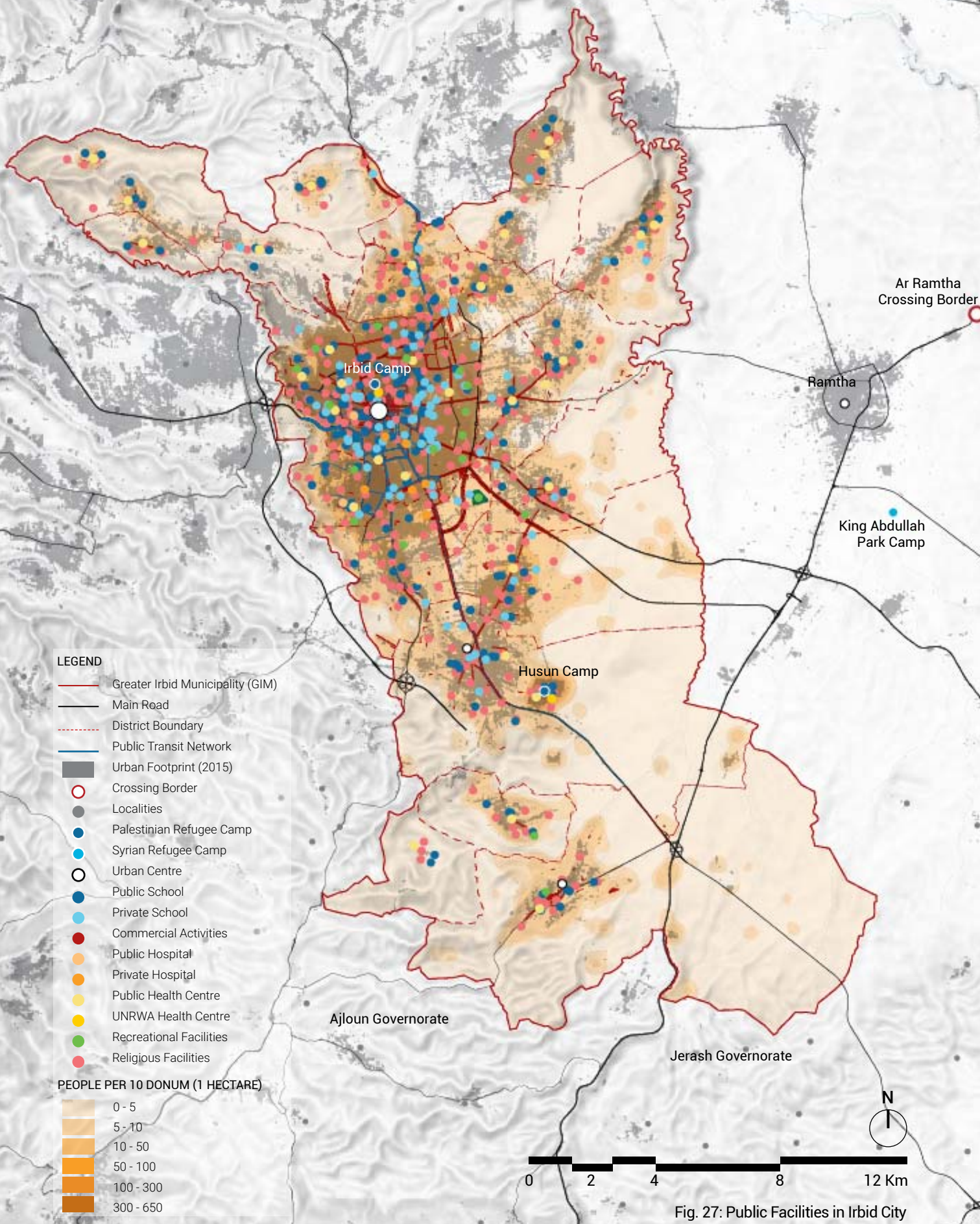
Fig. 26: Basic Services (sewerage, storm-water, and solid waste) in Irbid City

Access to Public Facilities

GIM provides its services to everyone living within its districts. The municipality provides physical services related to street cleaning and environmental-related aspects, building permits, popular 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 GIM's administrative boundary including educational, healthcare, religious, commercial, and recreational facilities.

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



LEGEND

- Greater Irbid Municipality (GIM)
- Main Road
- District Boundary
- Public Transit Network
- Urban Footprint (2015)
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre
- Public School
- Private School
- Commercial Activities
- Public Hospital
- Private Hospital
- Public Health Centre
- UNRWA Health Centre
- Recreational Facilities
- Religious Facilities

PEOPLE PER 10 DONUM (1 HECTARE)

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- 300 - 650



Fig. 27: Public Facilities in Irbid City

Access to Public Facilities / Healthcare Facilities

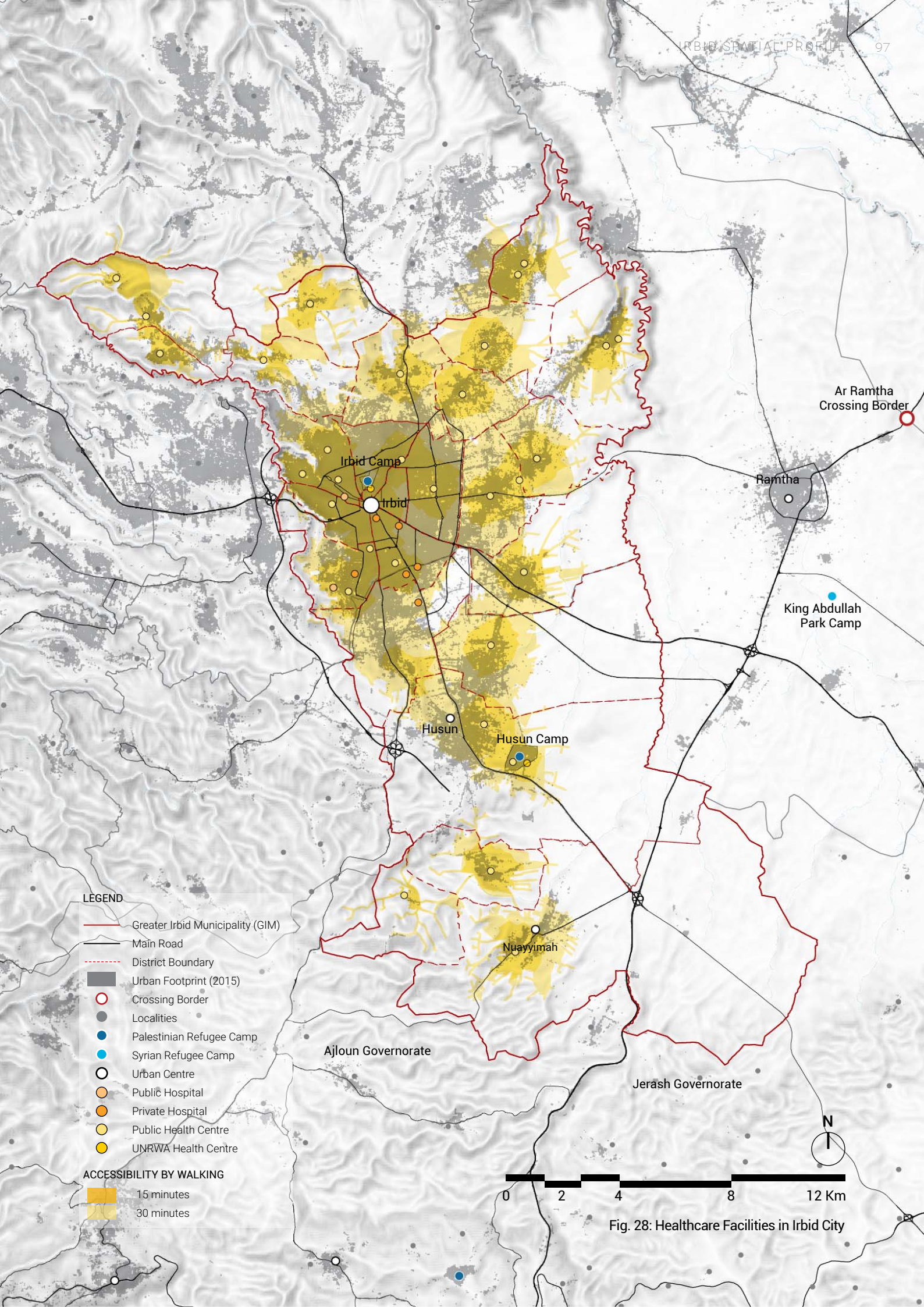
As a country, Jordan has quite an advanced healthcare system, whereby it was ranked by the World Bank to be the number one healthcare service provider in the region and among the top five in the world.⁴⁰⁹ Over the years Jordan has emerged as one of the most desirable locations in the region for medical tourism, and the country is rapidly developing an international reputation for high quality and affordable healthcare.⁴¹⁰ Due to recent shifts in the political climate of the Middle East, Jordan has accepted an influx of refugees. This, coupled with an increase in the domestic population, has led to a significant increase in the demand for hospitals as well as demands for suitable, sustained healthcare infrastructure and services overall.⁴¹¹ The country's healthcare system is mainly divided between public and private 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.⁴¹² 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.⁴¹³

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. It provides free or heavily subsidized preventive healthcare and limited curative medical treatment to its beneficiaries at its health centres located inside and outside refugee camps.⁴¹⁴ Furthermore, under an agreement with the Ministry of Health, UNRWA can refer patients to public hospitals for medical treatment and will cover part of the cost of some hospital referrals for inpatient care.⁴¹⁵ 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.⁴¹⁶ UNHCR supported health services are available for free for all vulnerable refugees excluding Palestinians.⁴¹⁷

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.⁴¹⁸ 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).^{419,420} 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 Syrian spent more than 10% of their expenditure on health items.⁴²¹ In 2019, the Government of Jordan reinstated subsidized access to public healthcare for Syrian refugees.⁴²² This was extended in 2020, to all non-Syrian asylum seekers and refugees across Jordan.⁴²³ 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.⁴²⁴ The non-insured Jordanian rate is normally considered affordable for non-vulnerable individuals especially at secondary and tertiary levels of care.⁴²⁵ Based on the latest population census, about 56% of the Kingdom's overall population are insured.⁴²⁶ The majority of Jordanians have insurance with the public sector, while the remainder have coverage through private, university, or military sources. However, there is considerable geographic disparity in the population with healthcare insurance, whereby in 2010, Irbid Governorate had an insurance coverage that reached around 83% of its population.⁴²⁷ Furthermore, regarding the COVID-19 vaccination rates, the latest statistics from the MOH reports, Jordan has administered approximately 8 million doses of COVID-19 vaccines so far, whereby approximately 37.3% of the country's population has been fully vaccinated with two doses and 41.2% with one dose.⁴²⁸ Additionally, based on data from the MOH and National Centre for Security and Crisis Management (NCSCM), UNHCR has estimated that, as of the end of October 2021, 33% of Syrian refugees living outside of camps have been vaccinated against COVID-19.⁴²⁹

At city level, GIM has 11 hospitals and 34 health centres that are distributed across its neighbourhoods. These hospitals have approximately 1,400 beds, with the population to healthcare bed ratio being around 400 persons per bed. The map displays the spatial distribution of existing public and private hospitals, and health centres in GIM. 64.2% of GIM's population have access to public hospitals and public health centres within a 15-minute walking distance, while 95.2% have access within a 30-minute walking distance.



LEGEND

- Greater Irbid Municipality (GIM)
- Main Road
- District Boundary
- Urban Footprint (2015)
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre
- Public Hospital
- Private Hospital
- Public Health Centre
- UNRWA Health Centre

ACCESSIBILITY BY WALKING

- 15 minutes
- 30 minutes



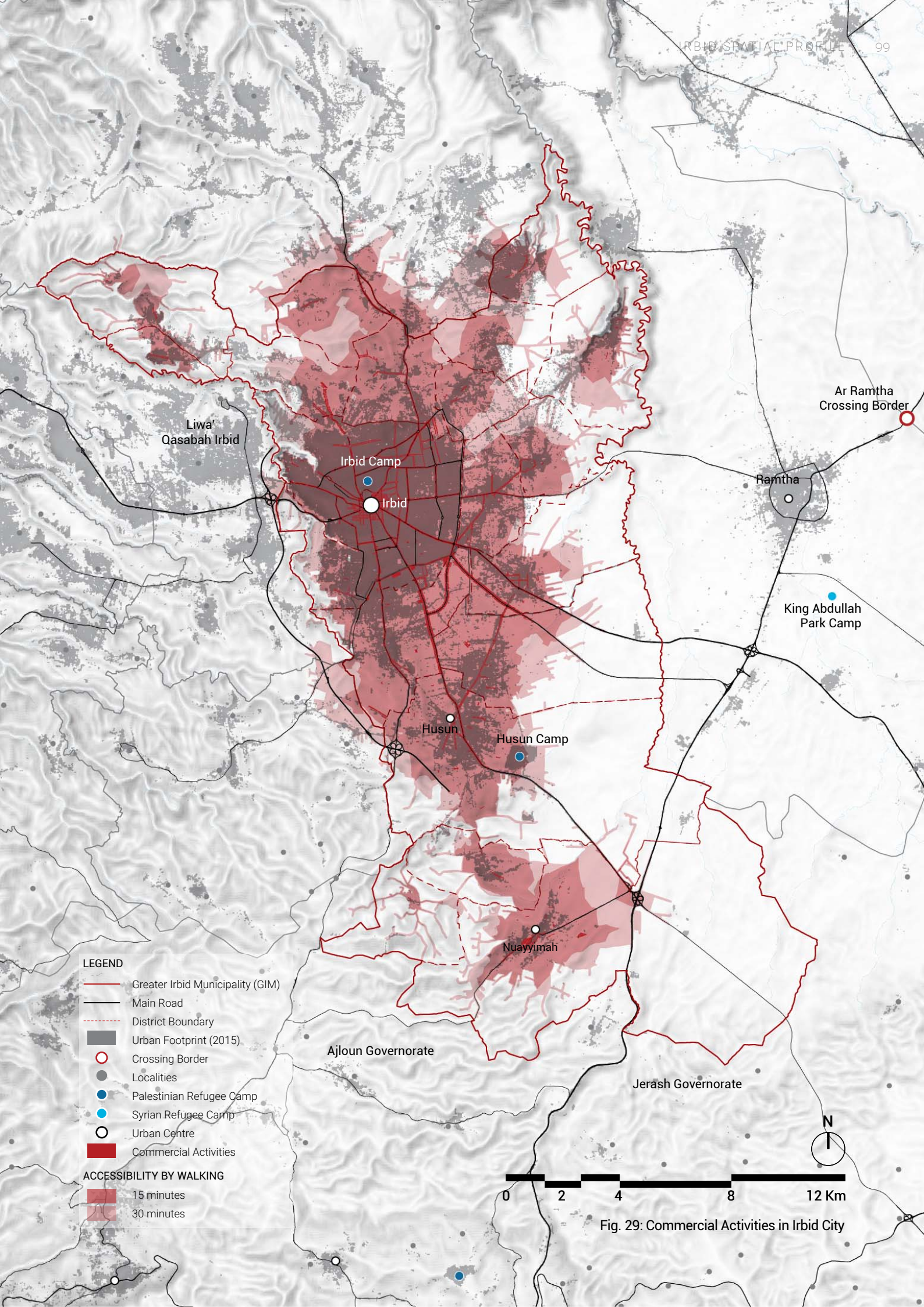
Fig. 28: Healthcare Facilities in Irbid City

Access to Public Facilities / Commercial Activities

Commercial land use within GIM's planned area is 3.6%. 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 GIM.

Based on the SDG indicator analysis of public services within a 15 and 30 minute walking distance, 93% of GIM's population has access to commercial activities within a 15-minute walking distance and 97% has access within a 30-minute walking distance.

Furthermore, local standards indicate that the service catchment radius of commercial activities is 500 meter. Accordingly, 75% (55.9 km²) of GIM's urban area is fully served with commercial activities, while 25% (18.2 km²) have no commercial facility coverage.



LEGEND

- Greater Irbid Municipality (GIM)
- Main Road
- District Boundary
- Urban Footprint (2015)
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre
- Commercial Activities

ACCESSIBILITY BY WALKING

- 15 minutes
- 30 minutes



Fig. 29: Commercial Activities in Irbid 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 2017.⁴³⁰ Children of Jordanian nationality are the majority at 84%, whereas Syrian children account for 10% and other nationalities for 6%.⁴³¹ Additionally, 18% of the Kingdom's school-age population live in the Irbid Governorate.⁴³²

As the Syrian conflict continues into its tenth year, 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.⁴³³ 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.⁴³⁴

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.⁴³⁵ Furthermore, schools in Jordan are mainly categorised into private and public schools.

GIM has a high educational level compared to the levels of Governorate of Irbid and the Kingdom as whole. It has three public universities, two private universities, and three colleges.⁴³⁶ However, there is a deterioration in some indicators related to the education system, such as the increase in the number of rented schools and the increase in the burden on teachers.⁴³⁷ Therefore, the Municipality needs more schools with different levels as well as more faculty members to accommodate the increase in population and serve the new urban growth areas.

As depicted in the map, educational facilities are concentrated in the districts around the city centre, with hardly any more facilities as you move out of the city centre and towards the peripheries of GIM.

There are 181 public schools in GIM, of which 117 are primary and 64 secondary schools, as well as 91 private schools. The street network analysis conducted on public schools in GIM indicates that 90% of the population have access to public schools within a 15-minute walking distance, while 98% have access within a 30-minute walking distance. Based on the local standards,⁴³⁸ the service catchment radius for primary and secondary public schools, which is 3 and 5km respectively, is well served within GIM's urban areas. Since the cost of private schools is much higher than public schools, the majority of the population cannot afford them. As the analysis finds overall, GIM is well served with public schools spatially.

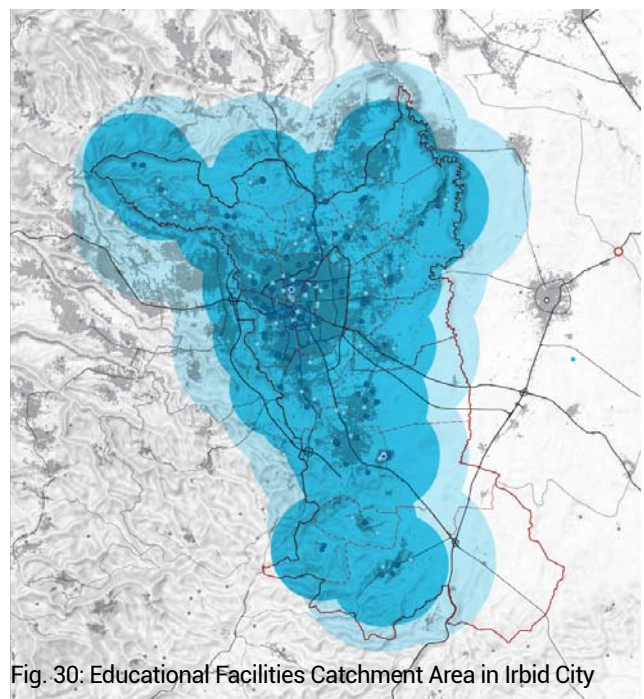
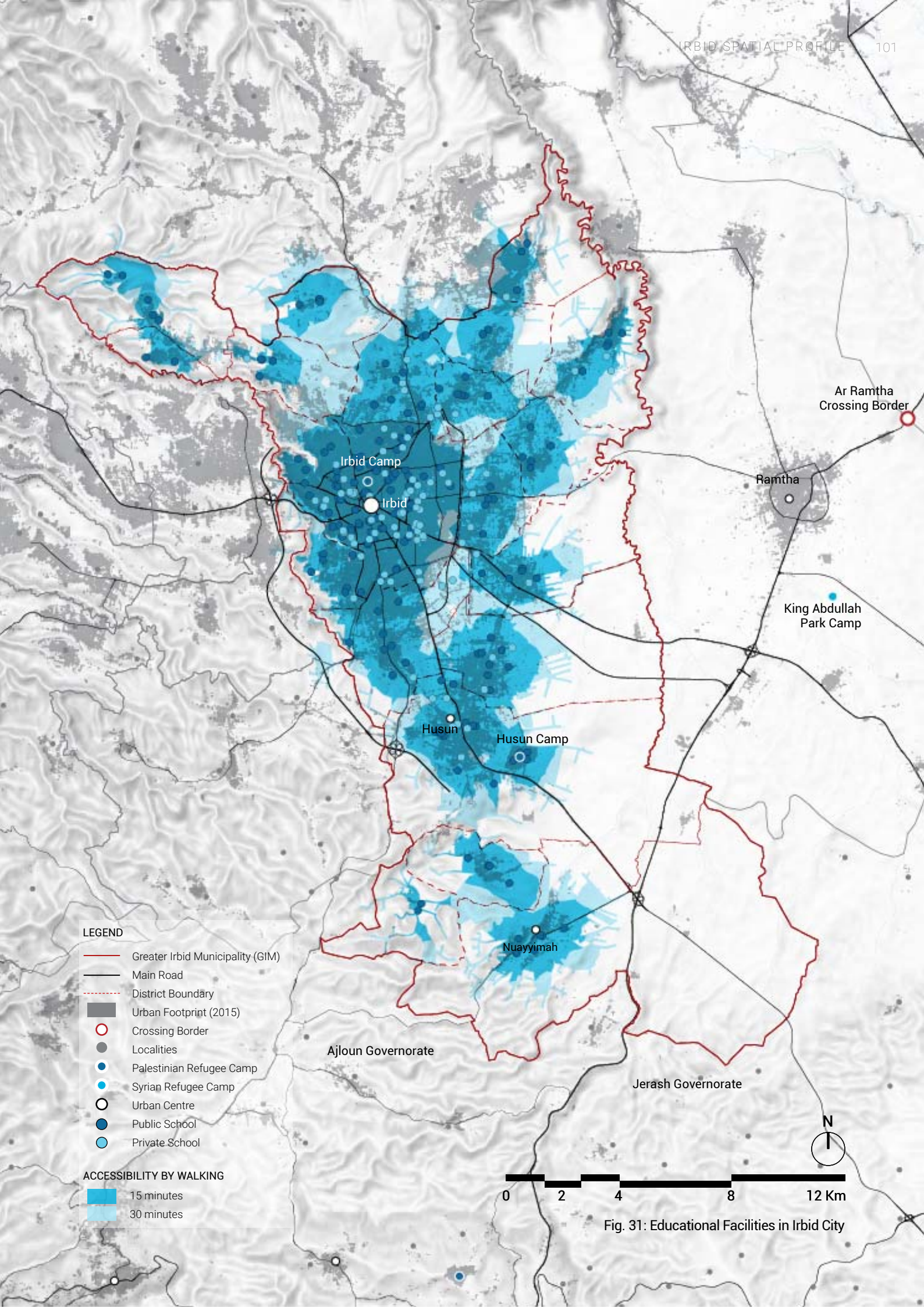


Fig. 30: Educational Facilities Catchment Area in Irbid City

LEGEND

- | | |
|--|--|
| — Greater Irbid Municipality (GIM) | ● Syrian Refugee Camp |
| — Main Road | Urban Centre |
| - - - District Boundary | ● Primary School |
| — Liwa Boundary | ● Secondary School |
| Urban Footprint (2015) | |
| Crossing Border | |
| ● Localities | |
| ● Palestinian Refugee Camp | |
| | CATCHMENT AREA |
| | Primary Schools, 3 Km |
| | Secondary Schools, 5 Km |



LEGEND

- Greater Irbid Municipality (GIM)
- Main Road
- District Boundary
- Urban Footprint (2015)
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre
- Public School
- Private School

ACCESSIBILITY BY WALKING

- 15 minutes
- 30 minutes

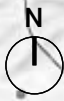


Fig. 31: Educational Facilities in Irbid City

Access to Public Facilities / Recreational Facilities

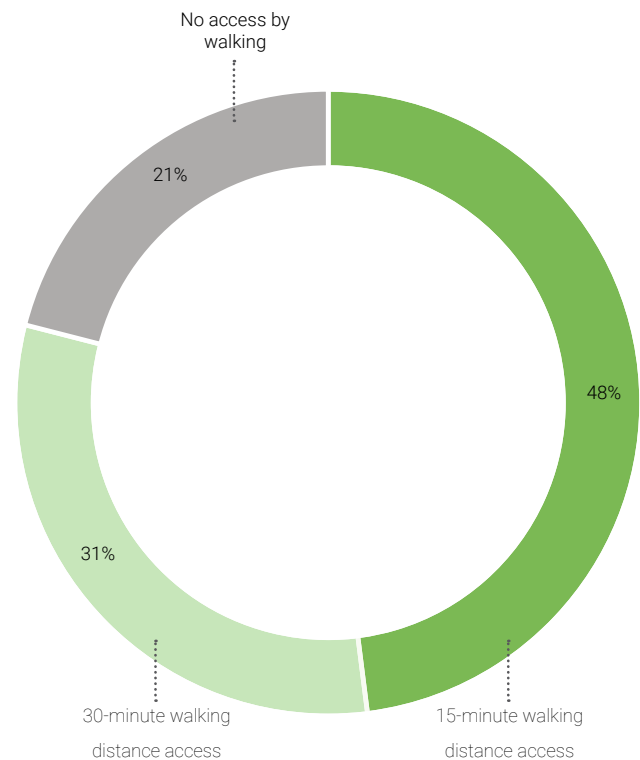
The minimal availability of public parks is considered a challenge across many Jordanian municipalities and cities, with GIM being no exception.

About 25% of the city's population is served by public parks at the residential-neighbourhood level.⁴³⁹ Overall, the city lacks parks and green open spaces, especially in the city centre. Some parks and green open spaces are evident at the regional level, but the area per population living near a park is low at approximately 0.48 m²/person.⁴⁴⁰

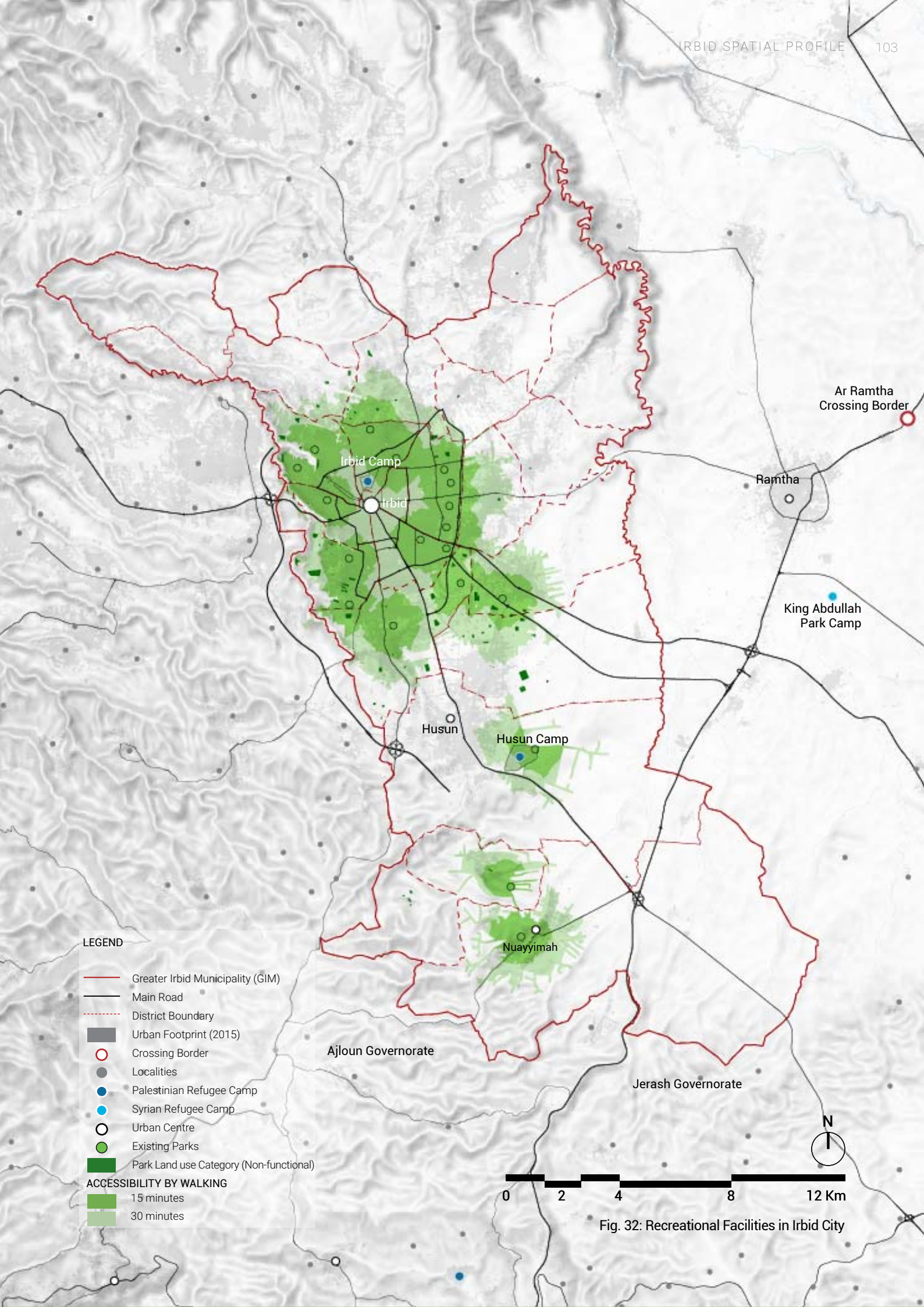
There are 17 functional parks at the neighbourhood and district levels, and one regional park named King Abdullah II Park.⁴⁴¹ In total, the parks cover an area of 9.3 km², which accounts for 1.4% of GIM's total area. Although there are 18 parks altogether, there remains a shortage in the number of parks and open spaces, both in rural and urban areas. The existing parks need continuous and periodic maintenance. Additionally, it is worth noting that there are many lands owned by GIM that are classified as parks but are not exploited.⁴⁴² Furthermore, there is a planned project to construct an amusement park, with the aim of establishing a permanent recreational area in Irbid that serves Irbid and the surrounding areas. However, this project has not yet received funding.

As shown in the map and based on the SDG indicator analysis of public services within a 15 and 30 minute walking distance, 48% of GIM's population has access to public parks within a 15-minute walking distance while 79% has access within a 30-minute walking distance.

Accordingly, public parks in GIM are considered limited, highlighting the need for developing more public parks within the Irbid City. This is especially evident in the urban areas of some northern and southern districts, such as Al Sarih and Al Huson 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.



Access to Recreational Facilities by Walking in Irbid City



LEGEND

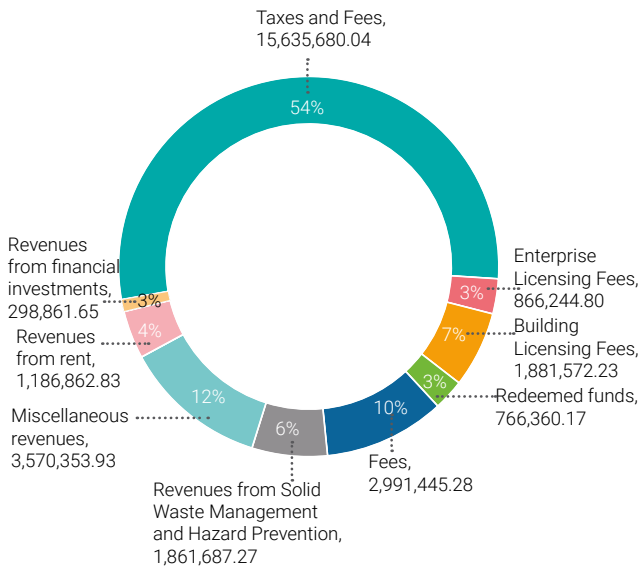
- Greater Irbid Municipality (GIM)
 - Main Road
 - - - District Boundary
 - Urban Footprint (2015)
 - Crossing Border
 - Localities
 - Palestinian Refugee Camp
 - Syrian Refugee Camp
 - Urban Centre
 - Existing Parks
 - Park Land use Category (Non-functional)
- ACCESSIBILITY BY WALKING**
- 15 minutes
 - 30 minutes



Fig. 32: Recreational Facilities in Irbid City

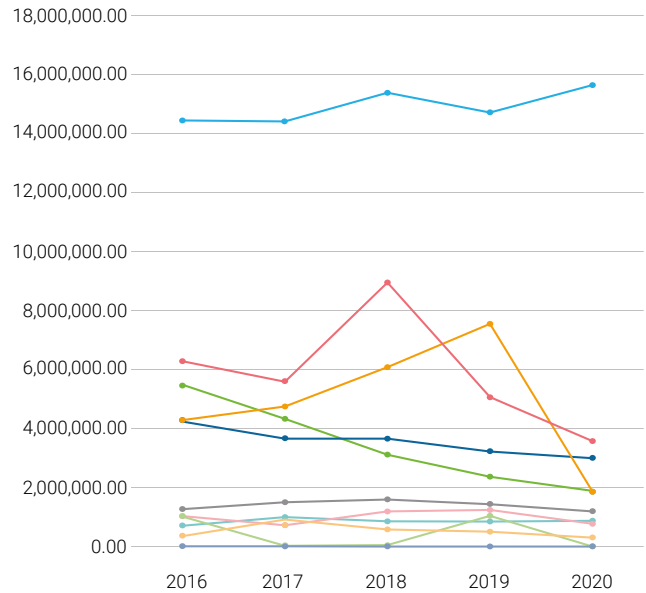
Municipal Financial Context⁴⁴³

GIM mobilises funds for infrastructure projects through various channels. In terms of municipal self-generated revenues of first category municipalities, GIM came in second highest for the year 2020 with an amount of 452,026,29JOD. Self-revenue are generated from taxes and fees, financial investments, interest rates, rent, grants, licensing and fees. In 2020, 54% of the total municipal revenue generated by GIM came from taxes, followed by 10% from general fees, 7% from building licensing fees, and 6% from solid waste management and hazard prevention. It can be noted that taxes and fees have continued to be the largest source of revenue for GIM between 2016 and 2020.



GIM 2020 Total Municipal Revenues by Source (JOD)
Source: GIM Annual Financial Closing Accounts 2016 - 2020

Higher government allocates an annual budget to be directly transferred to municipalities, which typically comes from the proceeds of the 8% fossil fuel tax.⁴⁴⁴The process of how the central government allocates funding for capital projects within municipalities is a complex task that is impacted by a variety of factors, such as the overall financial capacity of the municipality. Therefore, the share which each municipality receives may change with every year. The fund allocated to GIM from fossil fuel proceeds is between (8-12%) of the total fossil fuel revenue. In general this type of subsidy is benefiting smaller municipalities rather than greater municipalities that are able to generate their own revenues.



GIM Total Annual Municipal Revenues in JOD (Disaggregated by Revenue Source) 2016-2020
Source: GIM Annual Financial Closing Accounts 2016 - 2020

As for external financing, GIM is able to access funds through various channels. In terms of local aid, GIM can access financing from local development foundations, local NGOs, local development funds and public LLCs. GIM is also able to access funding from local municipal grants, such as the Princess Alia Foundation, Phosphate Company, Arab Potash Company, Jordan Environment Fund (JEF), The Royal Hashemite Court.

CVBD is mandated to provide municipal financing to all infrastructure sectors that fall within the municipality's responsibility. However, financing is provided to projects of highest priority and for which the municipality will require further financial support, beyond what it can. GIMs municipal loans from CVBD have continued to increase, from JOD4,922,059 in 2016, to JOD18,085,869 in 2020. Accounts non-collectable for GIM in 2020 was at 79%, according to CVBD, the high percentage indicates a weakness in the management of collecting self-revenues and receivables, negatively impacting the level of services provided by the municipality.

GIM also has access to foreign development aid. This can be done directly to the municipality's local fund in the form of cash or in-kind grants. GIM is also able to receive funding from international donors through Ministry of Planning and International Cooperation (MoPIC), whereby the Office of International Cooperation at MoPIC allocates the adequate budget needed for municipal infrastructure projects, based on the previously determined municipal Infrastructure needs submitted to MoLA and integrated into The Jordan Response Plan (JRP). For any project mobilized through MoPIC, GIM has to exclusively communicate with MoLA and CVDB, as funds will be dispersed based on a certain criteria, which is not published. Through MoPIC, GIM is able to access financial aid from Official Development

Assistance (ODA), as well as development funds, banks and agencies.

However, there are certain infrastructure projects that directly target municipalities without the involvement of MoPIC, such as the Jordan Municipal Support Project, implemented by the Federation of Canadian Municipalities. It is important to note that for many of these projects, MoLA needs to be notified when signing any agreement.

Revenues	2016	2017	2018	2019	2020
Taxes and Fees	14,434,616.30	14,402,371.50	15,373,103.08	14,703,338.50	15,635,680.04
Enterprise Licensing Fees	699,863.50	990,827.10	856,217.60	846,060.10	866,244.80
Building Licensing Fees	5,480,056.29	4,326,131.00	3,110,802.48	2,363,696.19	1,881,572.23
Redeemed funds	1,027,805.04	720,780.64	1,189,592.62	1,239,560.44	766,360.17
Fees	4,228,223.79	3,652,107.21	3,650,441.44	3,218,508.28	2,991,445.28
Revenues from Solid Waste Management and Hazard Prevention	4,286,195.11	4,746,220.18	6,077,398.30	7,545,135.18	1,861,687.27
Miscellaneous revenues	6,280,822.43	5,582,005.88	8,945,305.42	5,061,616.17	3,570,353.93
Grants	1,014,797.48	25,000.00	50,000.00	1,040,000.00	0.00
Revenues from rent	1,260,732.89	1,499,797.50	1,587,992.16	1,432,084.67	1,186,862.83
Revenues from interest charged	5,759.26	1,028.00	0.00	0.00	0.00
Revenues from financial investments	346,017.20	915,043.00	575,717.90	498,102.75	298,861.65
Total Annual Municipal Gross Revenues	39,064,889.30	36,861,312.01	41,416,571.00	37,948,102.28	29,059,068.20
Current Expenditures	2016	2017	2018	2019	2020
Wages and Labor Expenditures	19,733,327.40	20,545,111.00	20,611,924.83	22,706,299.10	24,420,808.21
Operating Expenditures (public and administrative)	5,981,794.60	4,732,136.11	7,813,592.33	7,632,852.01	3,216,491.25
Rent Expenditures	367,417.80	338,506.34	319,481.84	339,623.84	281,821.34
Health and Environment Expenditures	465,149.00	45,768.13	81,693.46	82,772.28	80,777.05
Social Community Expenditures	62,648.17	61,260.47	47,220.64	63,907.77	48,123.76
Maintenance Expenditures	1,581,690.00	1,992,564.32	1,926,361.55	2,377,849.48	1,563,659.43
Brokerage and Interest Expenditures	321,382.93	535,716.39	705,285.42	1,550,445.68	482,356.25
Total Annual Municipal Current Expenditures	28,513,409.90	28,251,062.76	31,505,560.07	34,753,750.16	30,094,037.29

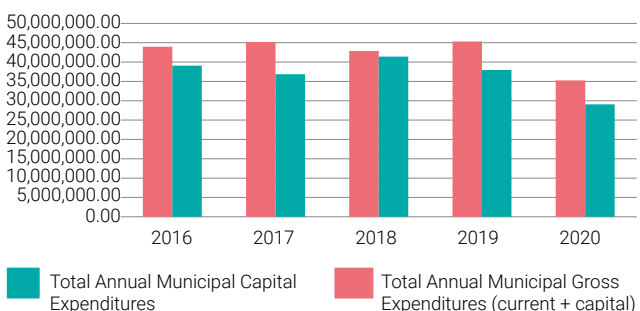
Capital Expenditures	2016	2017	2018	2019	2020
Capital Administrative Expenditures	161,098.00	113,873.67	205,762.33	253,350.99	815,168.08
Capital Services Expenditures	15,276,813.50	16,576,885.26	10,993,280.07	10,315,495.92	4,346,164.21
Capital Investment Expenditures	0.00	0.00	54,697.82	0.00	
Capital Investments	0.00	250,906.00	110,822.00	0.00	
Total Annual Municipal Capital Expenditures	15,437,911.50	16,941,664.93	11,364,562.22	10,568,846.91	5,161,332.29
Total Annual Municipal Gross Expenditures (current + capital)	43,951,321.40	45,192,727.69	42,870,122.29	45,322,597.07	35,255,369.58

Annual Actual Municipal Revenue/Expenditure Figures in JOD
 Source: GIM Annual Financial Closing Accounts 2016 - 2020

GIM is eligible to borrow funds from commercial banks, but mostly relies on CVDB as it is the financial lending arm for the government, providing better concessional rates, and in some instances zero interest loans. Borrowing from commercial banks typically requires the minister’s approval at MOLA.

Overall, based on the trends observed between 2016 and 2020, GIM’s gross expenditures have been always higher than the gross revenue, revealing the need for GIM to consider external funding sources.

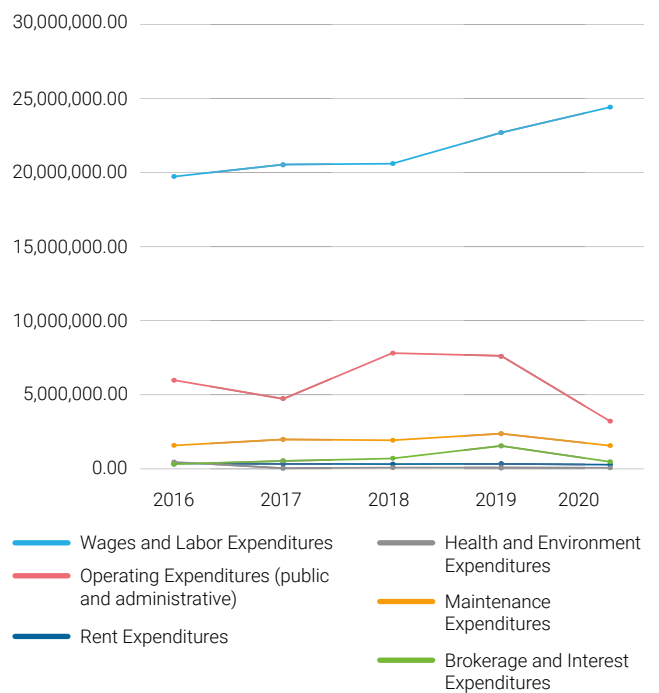
In 2016, GIM generated 55 JOD/capita (77.5\$ USD/capita) and in parallel, it spent 77 JOD/capita (108.6\$ USD/capita).⁴⁴⁵ In addition, GIM’s expenditure on capital investments has reached 24% of the total expenditure.⁴⁴⁶



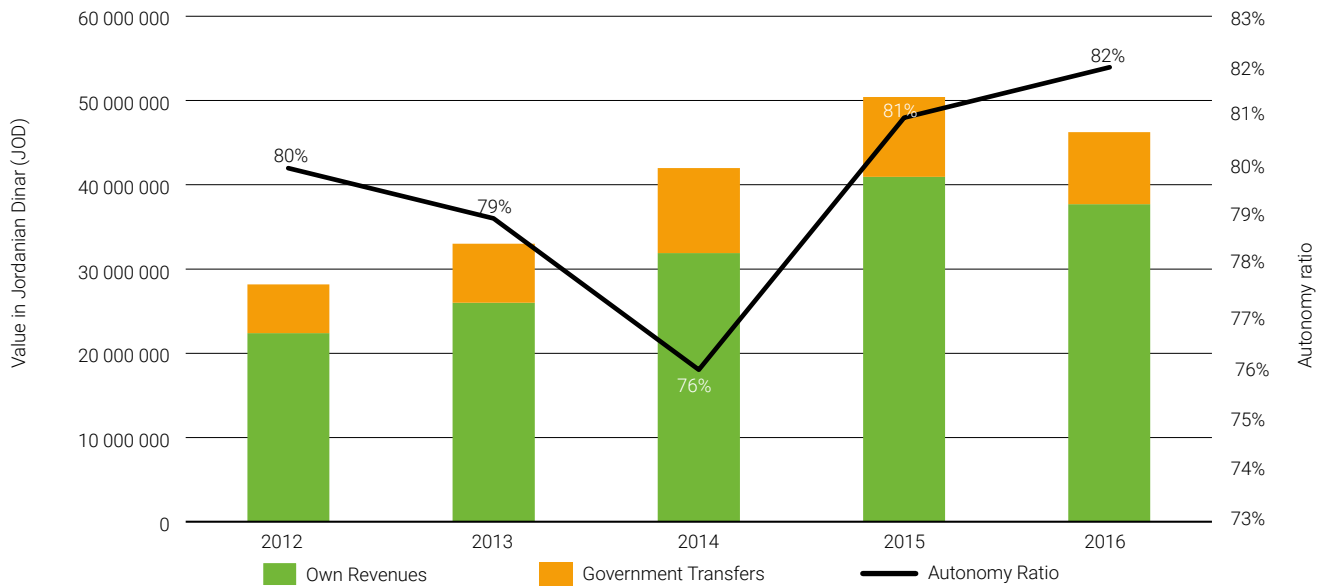
GIM Municipal Financial Analysis
 Source: GIM Annual Financial Closing Accounts 2016 - 2020

As for expenditures, wages and labor expenditures have continued to consume the majority of GIM’s budget, reaching a total of JOD 24 million in 2020. This was followed by operating expenditures, maintenance expenditures, brokerage and interest expenditures.⁴⁴⁷

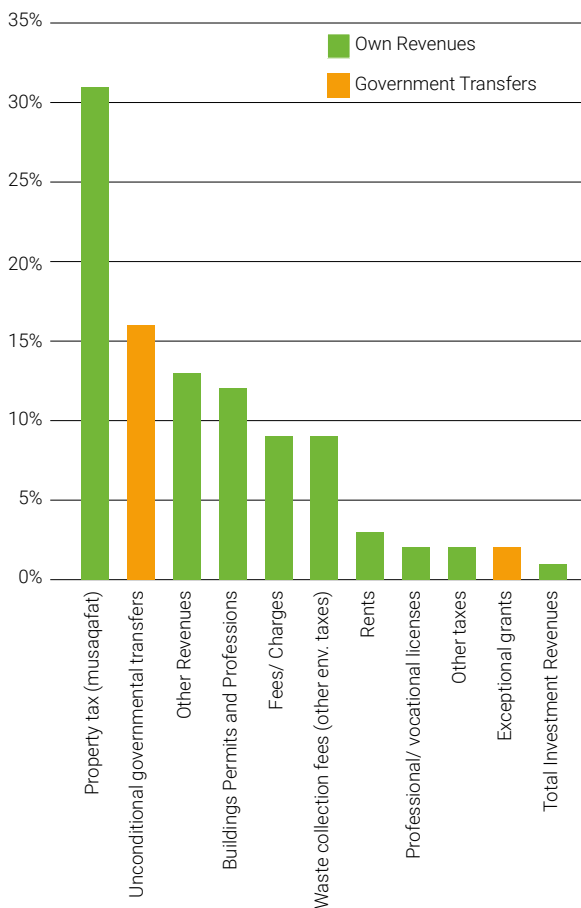
GIM’s self-revenues increased after the Syrian crisis in 2011 to reach its peak in 2015 where it reached more than 40 million JOD with high autonomy ratio of 81%.⁴⁴⁸



GIM Total Annual Municipal Current Expenditures in JOD (Disaggregated by Sector) 2016-2020
 Source: GIM Annual Financial Closing Accounts 2016 - 2020



Main revenues of Greater Irbid Municipality 2012-2016 (FDA, 2017)



Revenue structure of Greater Irbid Municipality in 2016 (FDA, 2017)

As Irbid has a high performance in many aspects, its 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 one of the most populous urban centres in Jordan.⁴⁴⁹ In return, impacting the financial stability and structure of expenditures of the city.⁴⁵⁰

The World Bank is working on supporting public financial management reforms at the local government level in Jordan, through their "Strengthening Municipal Financial Management Systems to Sustain Service Delivery in Municipalities Affected by the Refugee Crisis", for which GIM was selected. The aim of the project is to strengthen the institutional and financial systems, as well as the capacities of selected municipalities in Jordan, to improve local service delivery. Under the broad objective of helping to improve municipalities' financial management capabilities, the project sets out four specific goals to, improve the effectiveness and impact of municipal spending; enhance the transparency and accountability of municipalities vis-à-vis local communities and beneficiaries; strengthen the municipalities' capacity to mobilize their own revenues; and reduce the debt and improve the solvency of the municipalities.⁴⁵¹

Conclusion

Based on the most updated data from the 2015 census, the refugee density analysis conducted within GIM's administrative boundaries considered the numbers of Palestinian, Syrian, and Iraqi refugees. The analysis indicated that the concentration of refugees is mainly within the centre area, which consists of seven districts as well as Huwwara district, Al Sarih district, and Husun camp area within Husun district located at the eastern side of GIM.

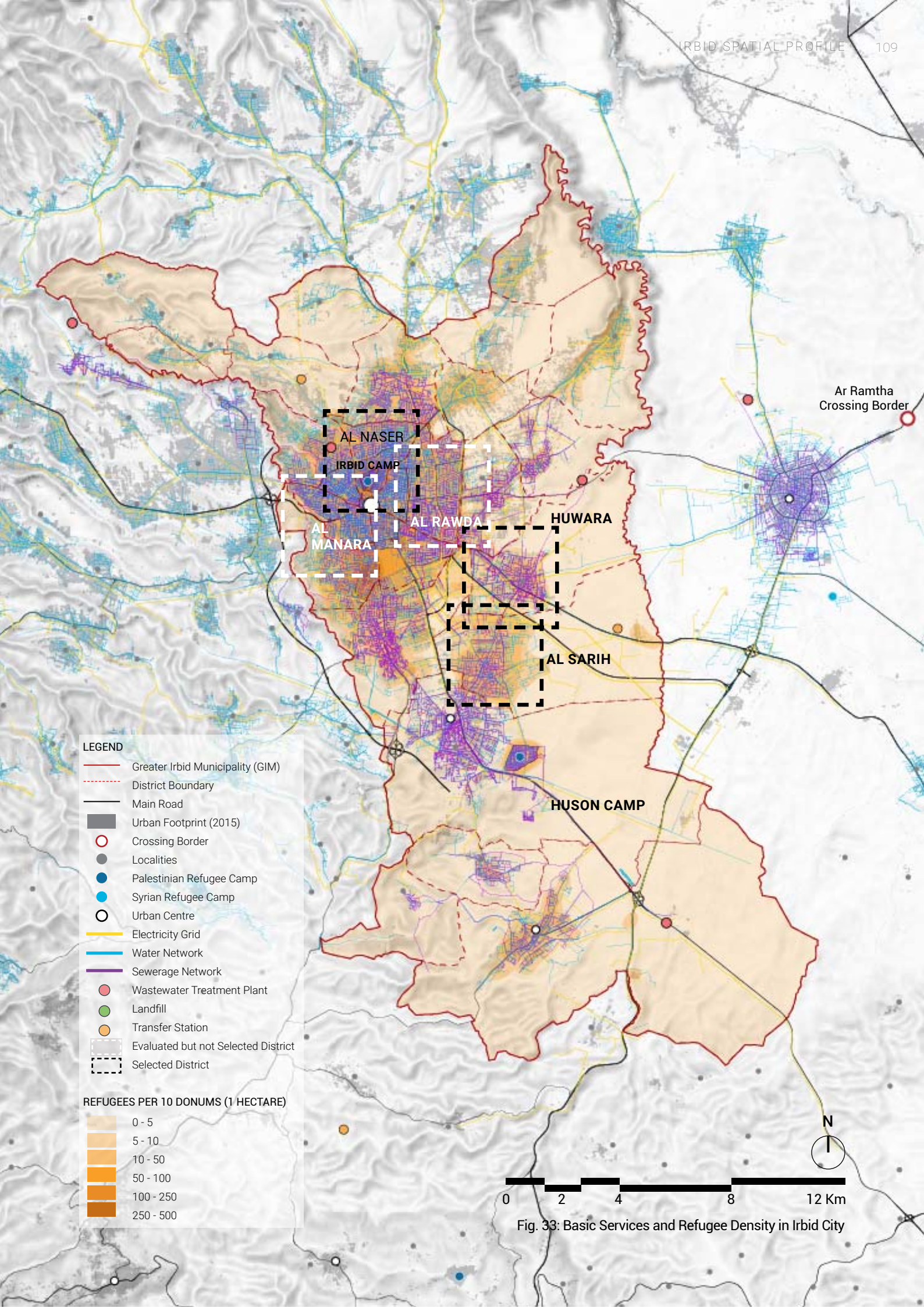
However, neighbourhoods within GIM's boundaries are too small in scale to be identified when assessed at the city level. Therefore, five districts with the highest refugee presence were selected and further evaluated in coordination with GIM's team members in order to identify and select the most vulnerable three neighbourhoods within the shortlisted districts. The selected districts for evaluation are Al Naser, Al Rawda, Al Manara, Al Sarih, and Huwwara. The evaluation criteria included assessing the refugee presence in the selected districts, the access to basic services, the access to public facilities, access to public transportation, availability of storm network, and the needed road construction and maintenance. As displayed in the below table, the evaluation revealed that the highest vulnerable districts are the Al Naser district,

which includes Irbid Camp, the Al Huwwara district, and the Al Sarih district. The selected districts include neighbourhoods of different characteristics. As such, the profiling exercise will be done for three neighbourhoods with unique typologies, which is an added value for the municipality, as it will build their capacity to replicate the process within the boundaries of other neighbourhoods and across typologies. The selected three districts have access to both electricity and water networks but lack access to the sewerage network.

Within this context, further analysis will be conducted at the district level to select a neighbourhood for profiling.

District	Al-Rawda	Al-Manara	Al-Sarih	Huwara	Al-Naser
Refugee Presence	5	4	2	5	3
Needs access to Infrastructure networks	3	0	3	3	3
Needs access to public transportation	0	2	5	5	2
Needs access to public facilities (schools, health centres, parks, & mosques)	1	3	5	4	2
Drainage Storm-water	5	0	3	3	5
Needs roads maintenance	4	3	4	1	4
Needs roads construction	0	0	4	5	0
Total	18	12	26	26	19

Evaluation Matrix with GIM



LEGEND

- Greater Irbid Municipality (GIM)
- District Boundary
- Main Road
- Urban Footprint (2015)
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre
- Electricity Grid
- Water Network
- Sewerage Network
- Wastewater Treatment Plant
- Landfill
- Transfer Station
- Evaluated but not Selected District
- Selected District

REFUGEES PER 10 DONUMS (1 HECTARE)

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 250
- 250 - 500



Fig. 33: Basic Services and Refugee Density in Irbid City



“If we wish to rebuild our cities, we must first rebuild our neighbourhoods”

Harvey Milk

04

NEIGHBOURHOOD CONTEXT

Al Naser District and Al Ouda Neighbourhood Contexts

Consisting of six neighbourhoods, the Al Naser District covers an area of 4.6 km² and accommodates a total population of 115,535 inhabitants. To accurately select the neighbourhood from the Al Naser District, and with a consideration that almost 99% of all Palestinians who reside in the Al Naser District (specifically inside the camp) are fully-fledged Jordanian citizens, Jordanian resident calculations were added to the Palestinian refugee count.

Accordingly, the Al Ouda Neighbourhood within the Al Naser District was selected based on the findings of the refugee density analysis, which revealed that it has the highest refugee presence in comparison to the other neighbourhoods within the district. This is associated with the location of Irbid refugee camp within the neighbourhood. 7.7% of the neighbourhood's residents are Palestinians, 6.7% are Syrians, and almost none are Iraqis. In reality, the percentage of Palestinian refugees is actually higher than the aforementioned percentage. However, because many Palestinian refugees living in this district have Jordanian citizenship, they were not incorporated into this calculation.

Al Ouda neighbourhood has an area of 0.8 km², a population of 39,608 inhabitants which comprises approximately 35% of the Al Naser District's population, and accordingly a population density of 49,510 persons/km². It is considered one of the densest neighbourhoods in Irbid City.

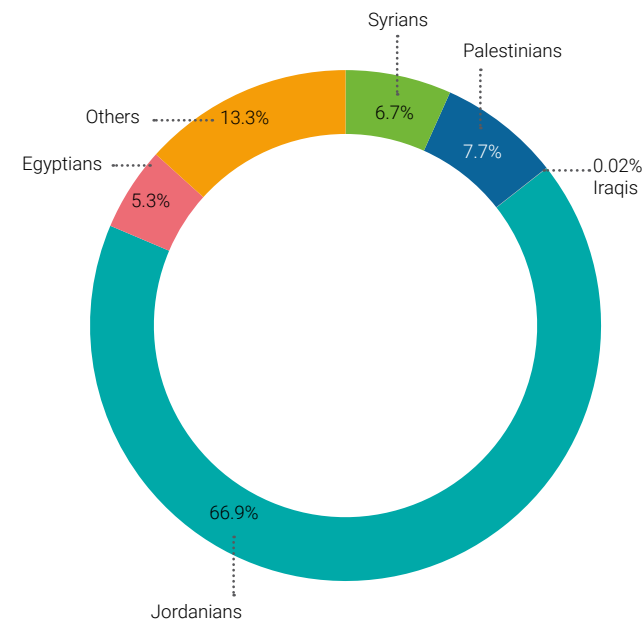


Fig. 35: Population Nationality Breakdown at Al Ouda Neighbourhood

Additionally, Irbid camp covers an area of 249,017 m², constituting of 31% of the whole neighbourhood, and whereby 78% of the camp's area is considered built up area. Furthermore, 76.5% of the neighbourhood's area consists of residential type D and 1.6% consists of residential type C, excluding the camp. Around 13% of the land use in the Al Ouda Neighbourhood is commercial and 8.6% is services.

Throughout the visual inspection for the neighbourhood, the housing in the camp was found as substandard and structurally poor. Moreover, substance abuse was repetitively noted by neighbourhood residents as the leading reason behind the decreasing sense of safety. Al Ouda neighbourhood represents the typology of a dense neighbourhood with overloaded infrastructure networks.

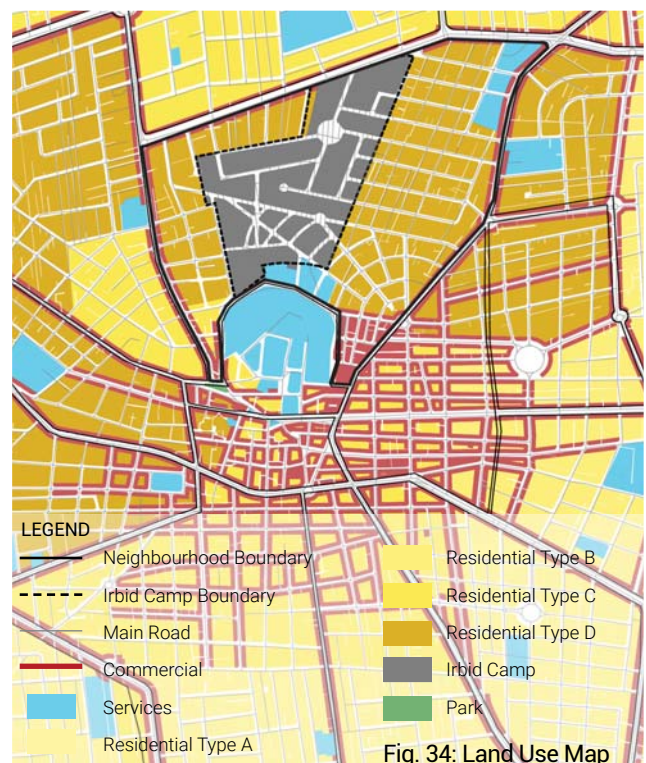


Fig. 34: Land Use Map



AL YARMOUK
NEIGHBOURHOOD

HANINA
NEIGHBOURHOOD

AL HERAFYIN AL
SHARQI
NEIGHBOURHOOD

AL NASER
NEIGHBOURHOOD

AL KARAMAH
NEIGHBOURHOOD

AL OUDA NEIGHBOURHOOD

IRBID CAMP

LEGEND

-  Al Nasir District Boundary
-  Neighbourhoods Boundary
-  Main Road
-  Palestinian Refugee Camp

REFUGEES PER 10 DONUMS (1 HECTARE)







-  0 - 5
-  5 - 10
-  10 - 50
-  50 - 100
-  100 - 250
-  250 - 525



Fig. 36: Refugees Density Map

Access to Basic Services

Based on the available data, the map reveals that Al Ouda Neighbourhood is connected to electricity, water, and sewerage networks. Additionally, a site visit was conducted to visually assess the challenges and situation on the ground while interacting with residents.

Electricity Service:

Al Ouda Neighbourhood is well connected to the existing electricity network.

Water Service:

The Capacity Assessment Tool measured the demand on the existing water network, which indicates the sufficiency of the existing 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 analysis revealed that there is a relatively high demand on water network at Al Ouda Neighbourhood level although there is access to the existing water network, which means that the water network is serving a larger population than it is designed to. This indicates that there is a need to upgrade the water network at the neighbourhood level to ease the pressure on the current network.

Storm-water Drainage System:

The neighbourhood residents explained that there are challenges with the storm-water drainage system, with one resident explaining, "We are suffering from two things: the overflow of sewerage and from the water runoff. Water comes every Wednesday. I mean on Wednesday, whoever wants to enter the camp has to wear long leather boots." (Interview, Nov., 2021)

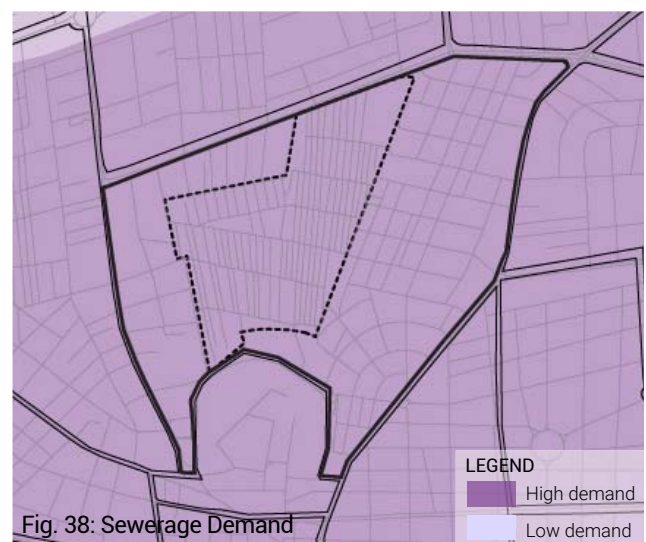
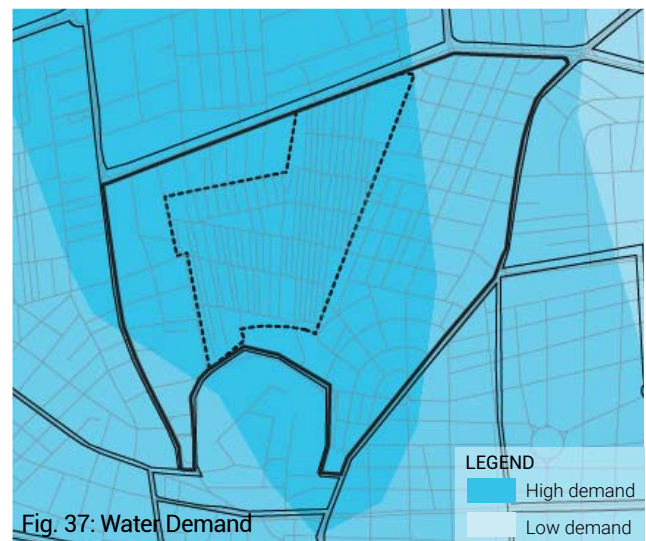
Sewerage Network:

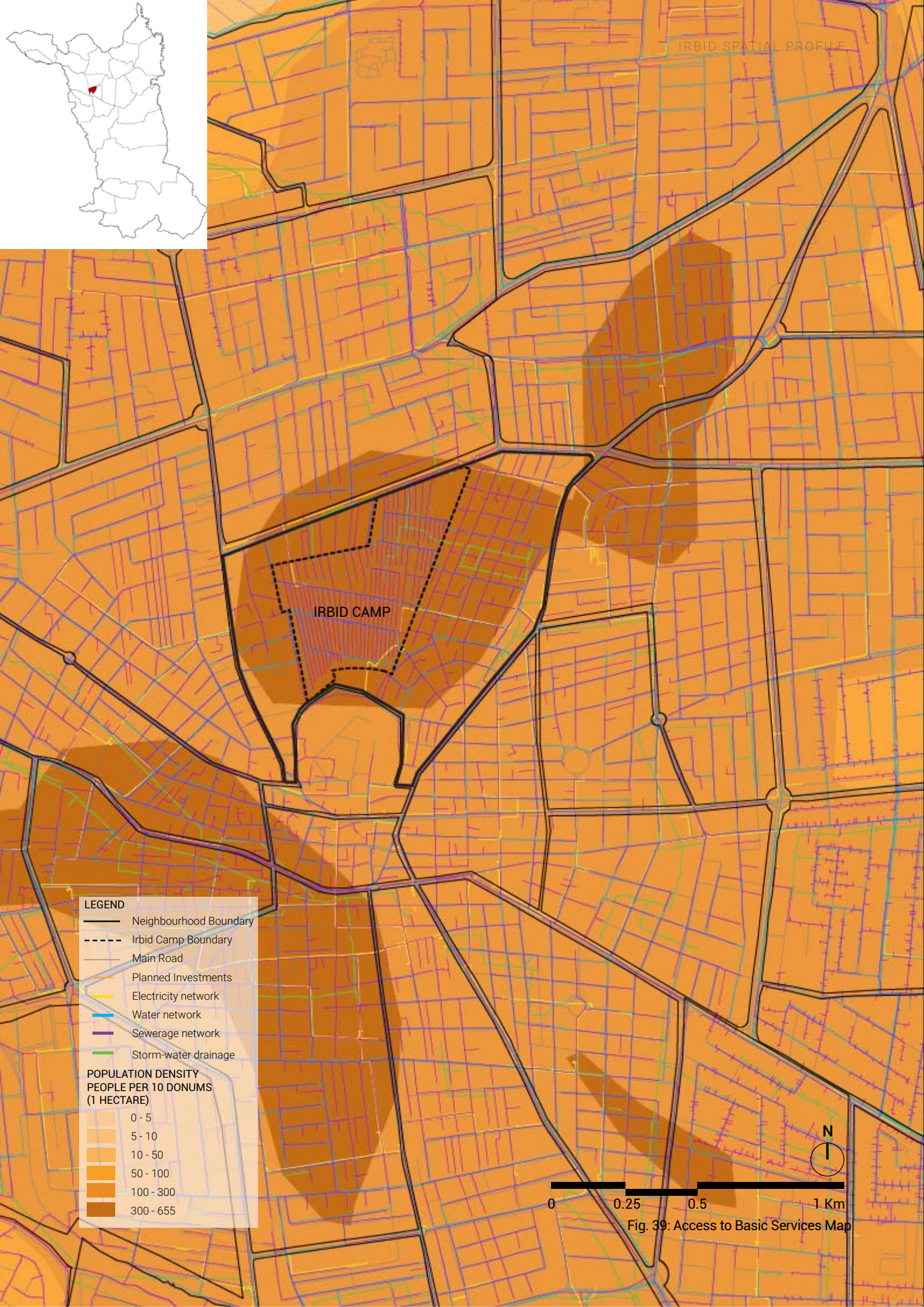
The capacity assessment tool measured the demand on the existing sewerage network and revealed that there is a high demand on sewerage network at the neighbourhood level although there is access to the existing sewerage network, which indicates that the sewerage network is serving a larger population than it is designed to and needs to be upgraded, as explained by the resident's quote above.

Solid Waste Management:

This visit revealed that there is a weak solid waste collection system within the neighbourhood, as shown in

the image. One resident of the Al Ouda Neighbourhood explained that "the issue with the solid waste collection is due to the absence of trash bins... the neighbours throw their trash anywhere. This causes tension between the neighbourhood's residents." (Interview, Nov., 2021) There is an evident shortage of trash containers in the neighbourhood whereby the infrastructure networks are serving more people than designed to. In other words, the capacity of the existing infrastructure cannot serve the current population of the neighbourhood, which is negatively affecting the quality and provision of basic services.





LEGEND

- Neighbourhood Boundary
- - - Irbid Camp Boundary
- Main Road
- Planned Investments
- Electricity network
- Water network
- Sewerage network
- Storm-water drainage

**POPULATION DENSITY
PEOPLE PER 10 DONUMS
(1 HECTARE)**

Lightest Yellow	0 - 5
Light Yellow	5 - 10
Yellow-Orange	10 - 50
Orange	50 - 100
Dark Orange	100 - 300
Dark Brown	300 - 655

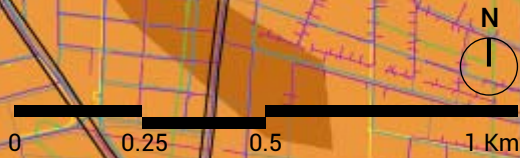


Fig. 39: Access to Basic Services Map

Access to Public Transport

The street network analysis measured the coverage of the existing public transportation services within the Al Ouda Neighbourhood. This applied a defined time interval of 5- and 15-minute walking distance to the existing street network surrounding the bus stops and public transportation routes. The map shows the areas served within a 5-minute walking distance from public transportation routes and bus stops as well as a 15-minute walking distance from bus stops.

Based on this street network analysis considering the spatial location of the existing bus stops and the public transportation routes, only the eastern side of the Al Ouda Neighbourhood has access to bus stops and public transportation routes within a 5-minute walking distance, while Irbid camp mainly has access to bus stops within a 15-minute walking distance. A resident

of the Al Ouda Neighbourhood said, *"I use public transportation, everyone uses it... it's cheaper than taxis... I don't face any problems using the public buses."* (Interview, Nov., 2021)

Regarding the planned infrastructure investment projects, the City Centre Renovation and Revitalization Project⁴⁵² is located at the southern edge of the neighbourhood, as shown in the map. As aforementioned, the project aims to integrate heritage, transport and mobility, public spaces, markets, and infrastructure. The project is currently seeking donors to finance construction.



Image of main street at Al Ouda Neighbourhood (UN-Habitat, 2021)



Image of a local road at Al Ouda Neighbourhood (UN-Habitat, 2021)

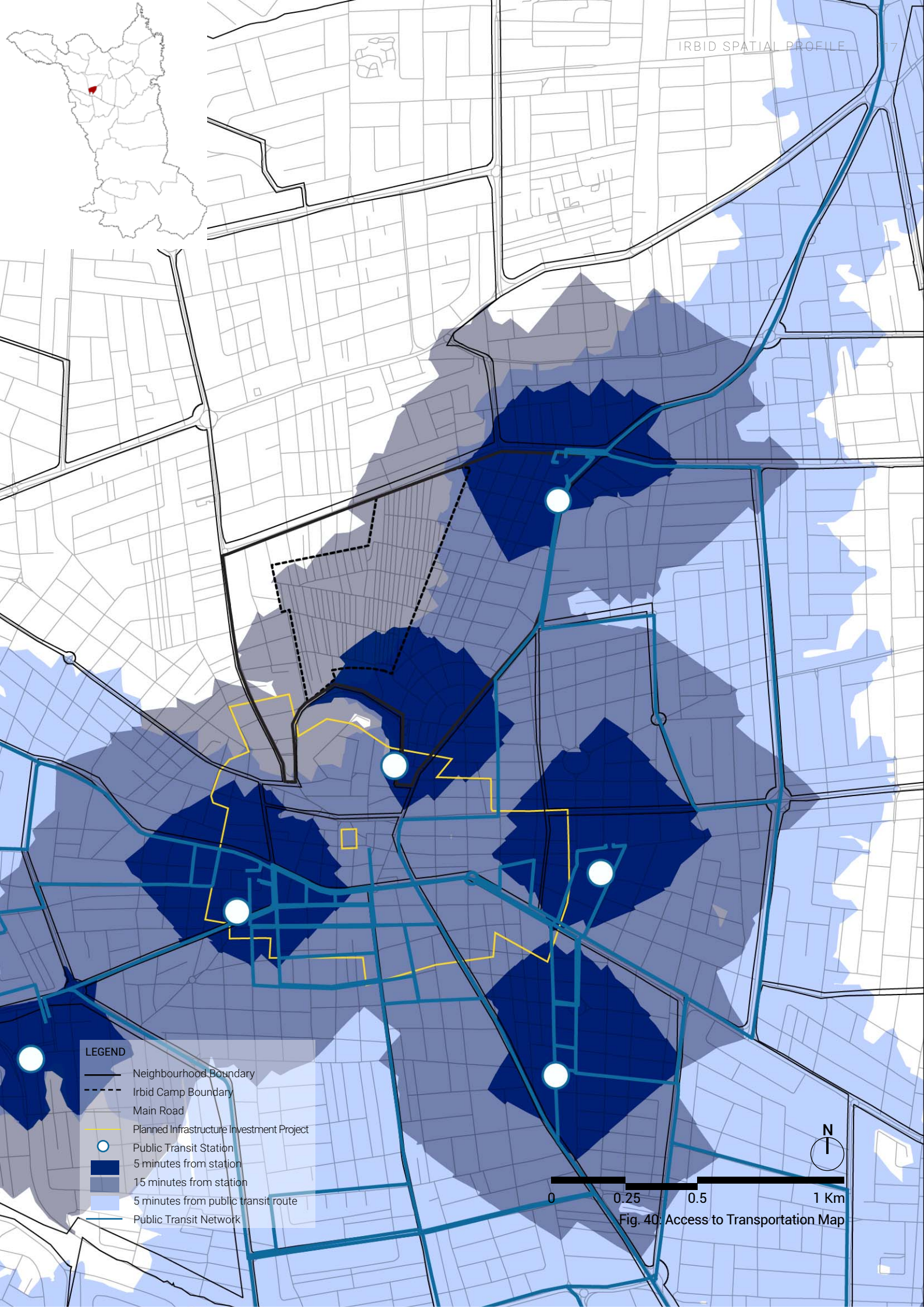


Fig. 40: Access to Transportation Map

Access to Public Facilities & Commercial Activities

Health Care Facilities:

There are no public health centres within the Al Ouda Neighbourhood's boundaries, except for the UNRWA Health Centre at the edge of Irbid camp, which serves only Palestinian refugees within a 15-minute walking distance. The two public health centres in the surrounding neighbourhoods as well as one public hospital is accessible to 75.7% of the Al Ouda Neighbourhood's residents within a 15-minute walking distance around the neighbourhood's boundaries. Accordingly, based on the SDG indicators analysis, all residents of the neighbourhood have full access to healthcare facilities within a 15-minute walking distance. Therefore, the neighbourhood is well served with healthcare facilities.

Educational Facilities:

There are 3 public schools within Al Ouda Neighbourhood, of which 2 are within the Irbid Camp area. Based on the analysis, 29.8% of the population have access to public schools within a 5-minute walking distance and 100% within a 15-minute walking distance. Based on local standards and SDG indicators, the neighbourhood is well served with educational facilities.

Recreational Facilities:

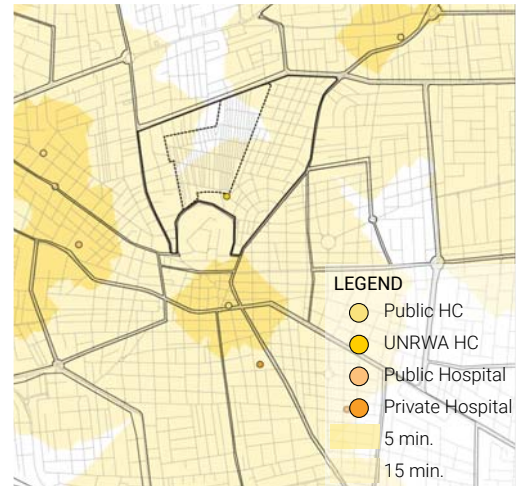
According to the street network analysis and the existing public spaces, the Al Ouda Neighbourhood does not have access to public spaces within a 5-minute walking distance. The northeastern part of the neighbourhood (33% of the neighbourhood's population) has access to the northern parks within a 15-minute walking distance. At the neighbourhood level, this analysis confirms that there is a relatively low percentage of accessible public spaces in Irbid City.

Commercial Activities:

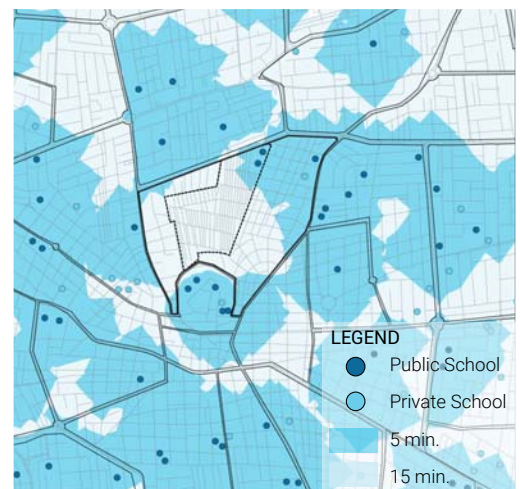
The Al Ouda Neighbourhood is located in the city centre, where most of the commercial and mixed-use activities are. The neighbourhood is fully served with commercial activities within a 5-minute walking distance.

Residents of the neighbourhood validated the findings that the neighbourhood is well served with public facilities, with one resident explaining, "the area is well covered with services, and I don't face any obstacles to access any of the public services" (Interview, Nov., 2021)

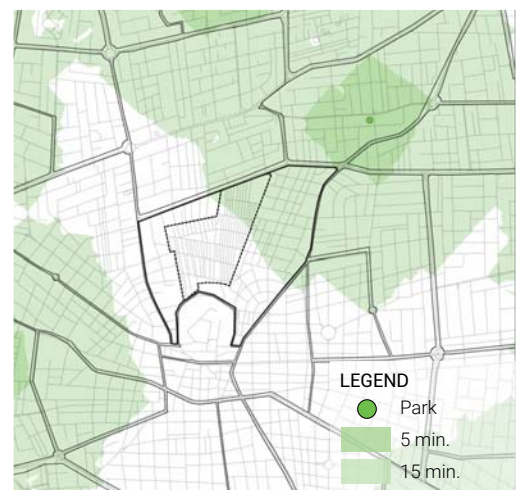
Health Care Facilities



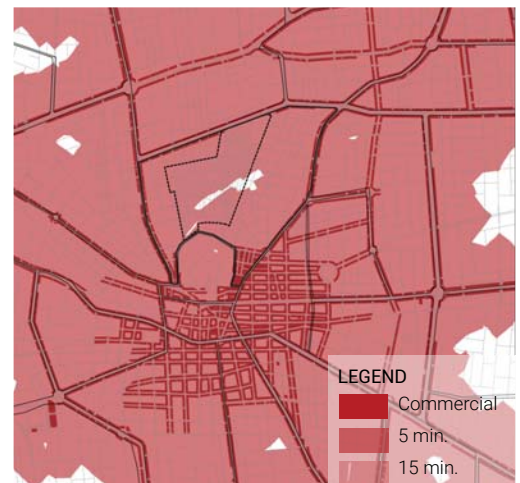
Educational Facilities

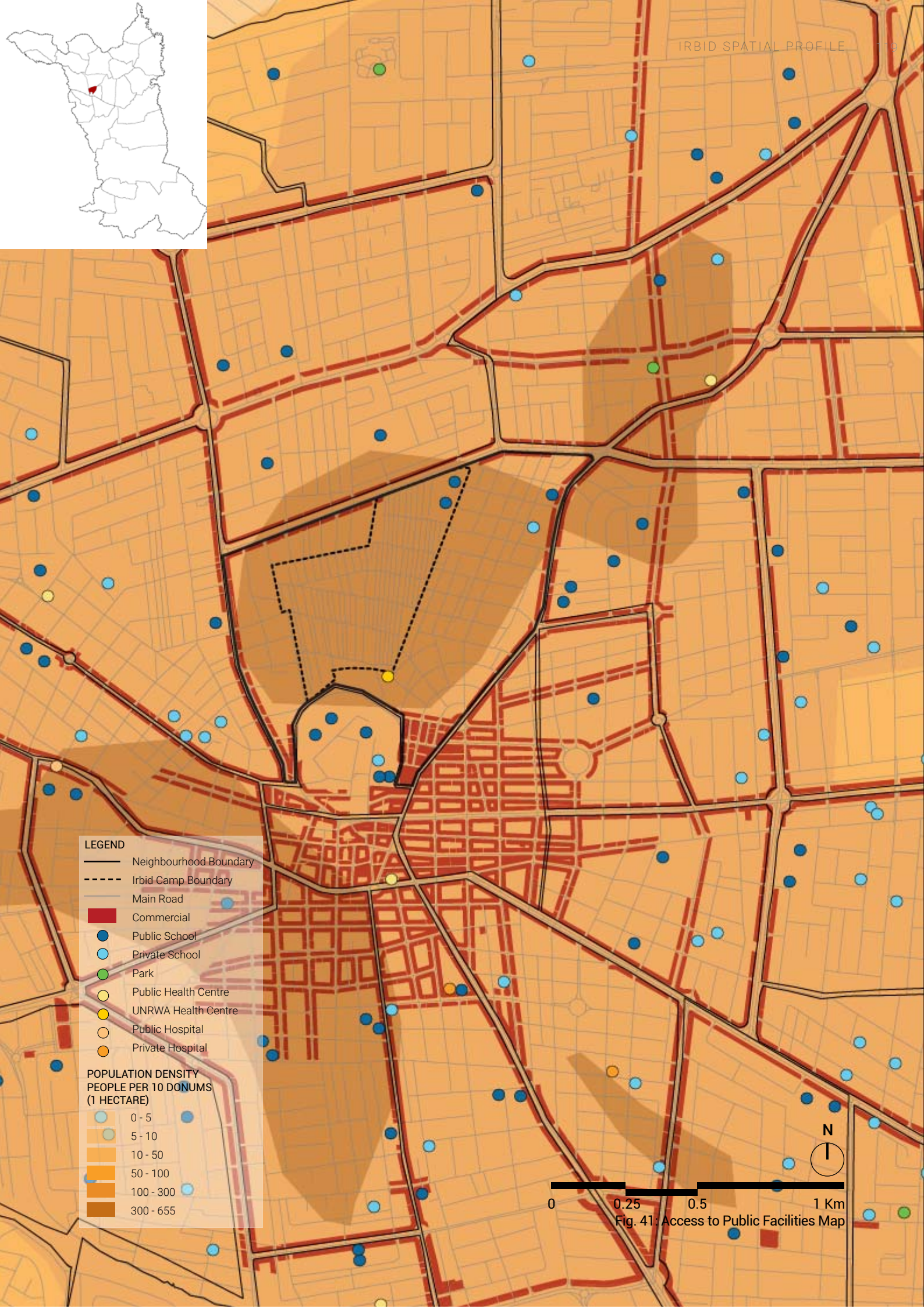


Recreational Facilities



Commercial Activities





LEGEND

- Neighbourhood Boundary
- Irbid Camp Boundary
- Main Road
- Commercial
- Public School
- Private School
- Park
- Public Health Centre
- UNRWA Health Centre
- Public Hospital
- Private Hospital

**POPULATION DENSITY
PEOPLE PER 10 DONUMS
(1 HECTARE)**

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- 300 - 655

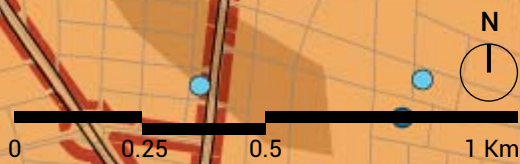


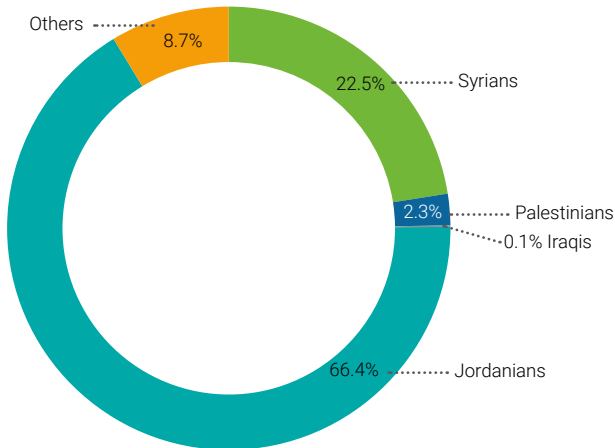
Fig. 41: Access to Public Facilities Map

Huwwara District and Al Basatin Neighbourhood Contexts

Consisting of five neighbourhoods, the Huwwara District covers an area of 18 km² and accommodates 25,328 inhabitants. The Al Basatin Neighbourhood within the Huwwara District was selected based on the findings of the refugee density and service-coverage analysis, which revealed that it has a high refugee presence with limited access to public facilities and services, as well as an absence of transportation, especially in comparison to the other neighbourhoods within the district.

The Al Basatin Neighbourhood has an area of approximately 1 km², which accounts for 21.5% of the district area; a total population of 4,188 inhabitants, and accordingly a population density of 4,188 persons/km². It is one of the neighbourhoods in the district that has been significantly affected by the influx of Syrian refugees. Refugee residents consist of 24.8% of the Al Basatin's population, whereby 22.5% are Syrian, 2.3% are Palestinian, and 0.1% Iraqis. In reality, the percentage of Palestinian refugees is actually higher than the aforementioned percentage. However, because many Palestinian refugees living in this district have Jordanian citizenship, they were not incorporated into this calculation.

The majority of the neighbourhood land is categorised as residential, whereby 9.4% of the neighbourhood's area is classified as type A, 56.9% is classified as type B, and 25.6% is designated for Type C. Additionally, around 7% of the land use in the neighbourhood is commercial and 1.4% is services. The visual inspection of the neighbourhood found that the housing generally seemed to be in a good condition and structurally sound, with most of the buildings having two or three floors. Additionally, many lands were identified as being vacant.



Population Nationality Breakdown at Al Basatin Neighbourhood

Al Basateen Neighbourhood represents the typology of a neighbourhood that lacks access to some infrastructure networks.

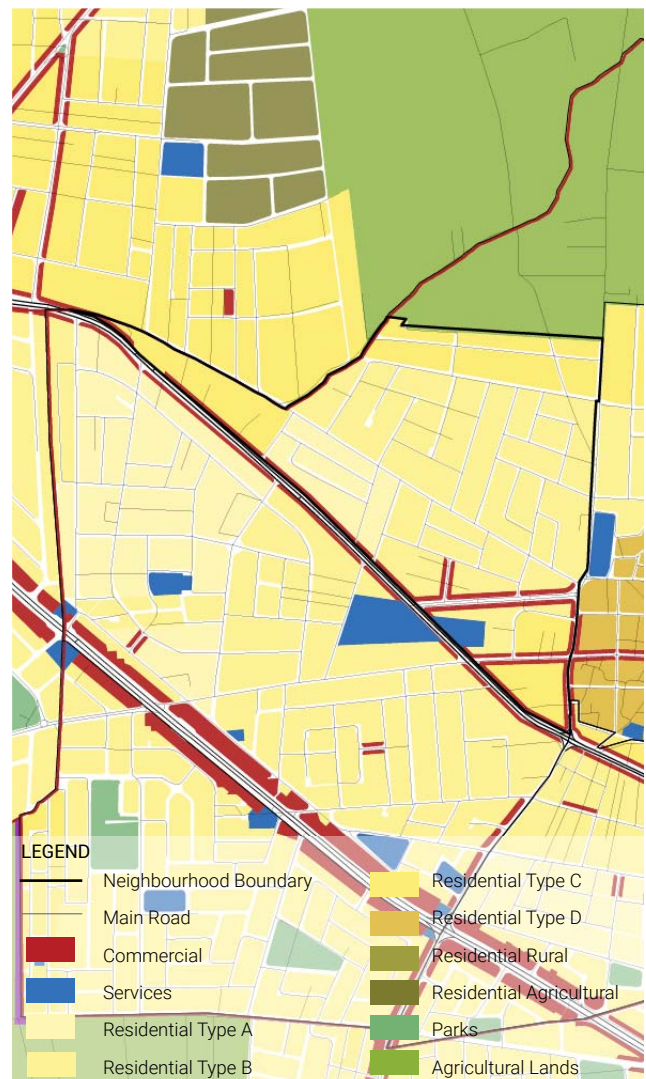


Fig. 42: Land Use Map

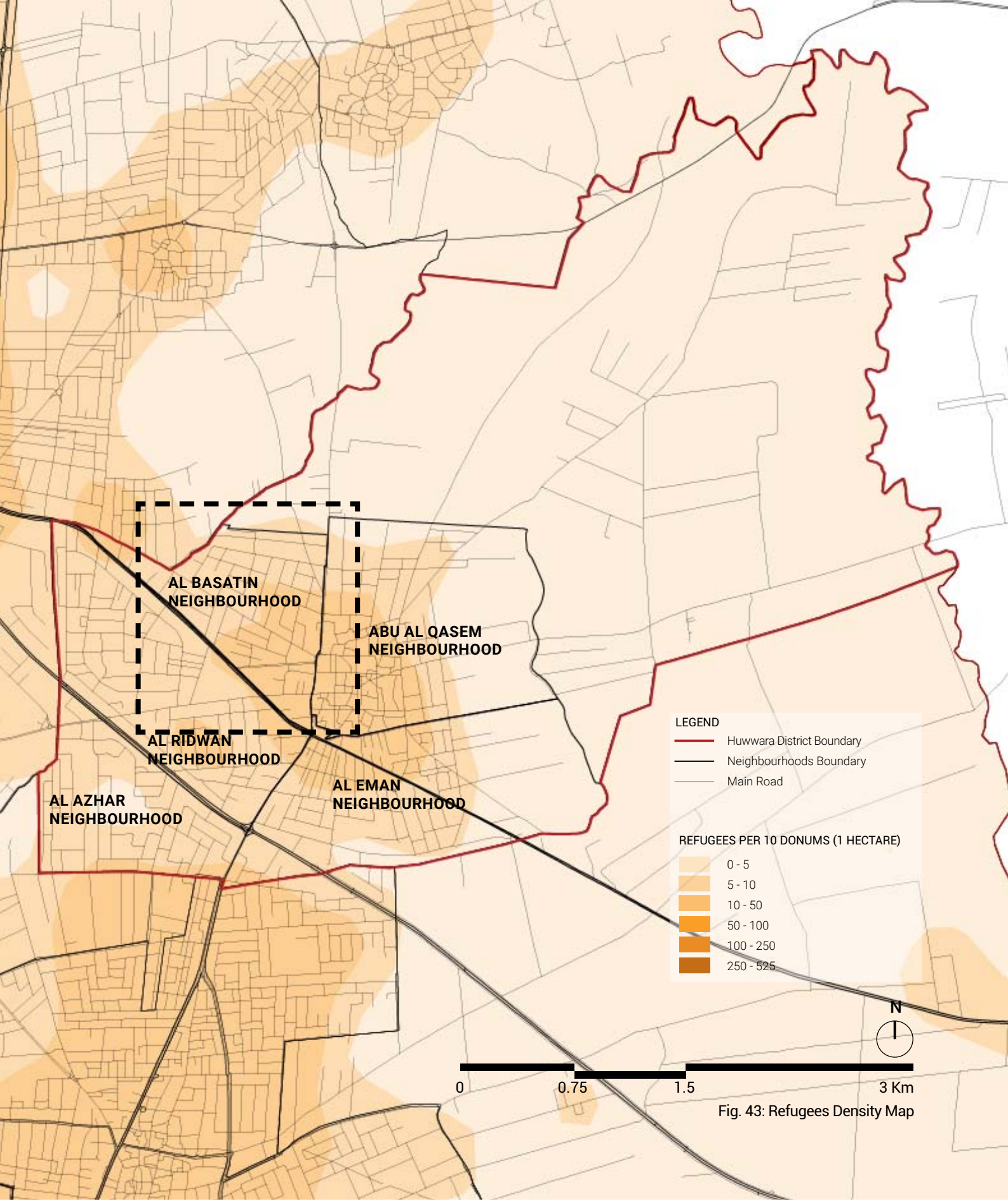


Fig. 43: Refugees Density Map

Access to Basic Services at Al Basatin Neighbourhood

Based on the available data, the map reveals that the Al Basatin Neighbourhood is connected to the electricity, water, and sewerage networks. Furthermore, a site visit was conducted to visually assess the challenges and situation on the ground as well as to interact with residents.

Electricity Service:

Al Basatin Neighbourhood is well connected to the existing electricity network.

Water Service:

The results of the water capacity assessment revealed that there is a relatively high demand on the water network although there is access to the existing water network at the Al Basatin Neighbourhood. This indicates the need to upgrade the existing water network. Furthermore, discussions with residents validated the need to upgrade the water network at the neighbourhood level to improve the pressure of the water pipes, with one resident explaining, "[the] water network is very weak, I have to purchase private water tanks to cover my needs. They are supposed to renovate the network this year." (Interview, Dec., 2021).

Storm-water Drainage System:

Al Basatin Neighbourhood is connected to the storm-water drainage network. None of the residents who were interviewed complained about the storm-water drainage system.

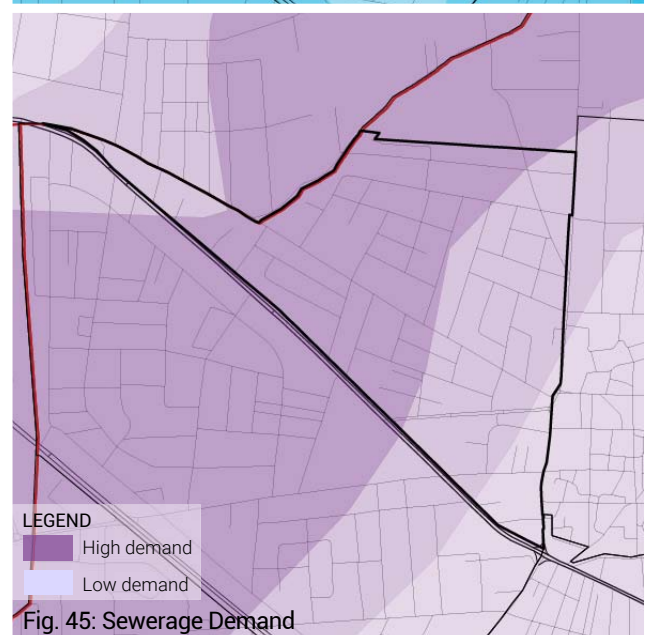
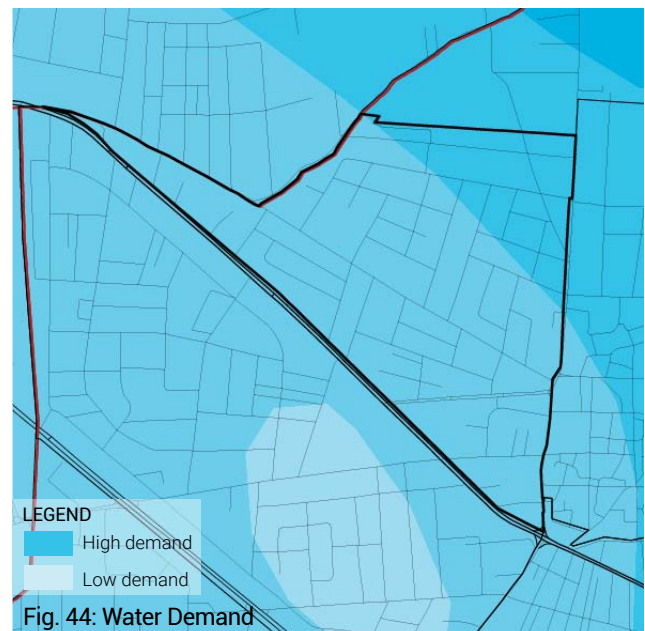
Sewerage Network:

The capacity assessment revealed that there is a relatively moderate demand on the existing sewerage network, specifically at the western side of the neighbourhood compared to the eastern side as shown in the map. No issues have been mentioned by the residents during the field visit regarding the sanitation service.

Solid Waste Management:

The field visit revealed that there is a weak solid waste collection system within the neighbourhood, as some parts of the neighbourhood are served with trash bins while others are not. Accordingly, there is an evident shortage of trash containers in the neighbourhood. Overall, as was substantiated during the site visit, the solid waste infrastructure within the neighbourhood

lacks capacity, which is, in turn, negatively affecting the quality and provision of basic services.





LEGEND

- District Boundary
- Neighbourhood Boundary
- Main Road
- Electricity network
- Water network
- Sewerage network
- Storm-water drainage

**POPULATION DENSITY
PEOPLE PER 10 DONUMS
(1 HECTARE)**

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- 300 - 655

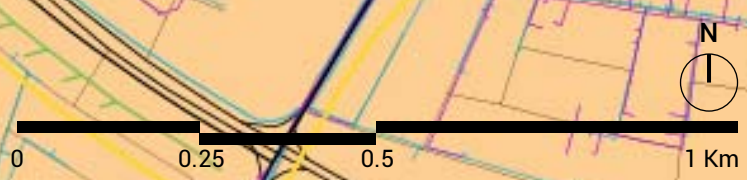


Fig. 46: Access to Basic Services Map

Access to Transportation at Al Basatin Neighbourhood

The street network analysis measured the coverage of the existing public transportation services within the Al Basatin Neighbourhood. This applied defined time intervals of 5- and 15-minute walking distances to the existing street network surrounding the bus stops and public transportation routes. The map shows the areas served within a 5-minute walking distance from public transportation routes and bus stops as well as the areas served within a 15-minute walking distance from the bus stops. Based on this street network analysis that takes into consideration the spatial location of the existing bus stops and the public transportation routes, the Al Basatin Neighbourhood was found to not have access to bus stops and public transportation routes. A resident of the Al Basatin Neighbourhood said, *"I need to walk for some distance and wait for the bus. I would prefer to use a private car rather than public transportation, as buses don't enter the neighbourhood."* (Interview, Dec., 2021)

Additionally, regarding the road network, most of the district suffers from the deteriorated streets. This was made evident through the complaints from residents on this issue, with one saying, *"As you can see, look how the streets are, we have communicated this with officials but have received no response."* (Interview, Dec., 2021)



Infrastructure of roads in Al Basatin Neighbourhood (UN-Habitat, 2021)











Infrastructure of roads in Al Basatin Neighbourhood (UN-Habitat, 2021)



Infrastructure of roads in Al Basatin Neighbourhood (UN-Habitat, 2021)



LEGEND

-  District Boundary
-  Neighbourhood Boundary
-  Main Road
-  Public Transit Station
-  Public Transit Network
-  5 minutes from station
-  15 minutes from station
-  5 minutes from public transit route

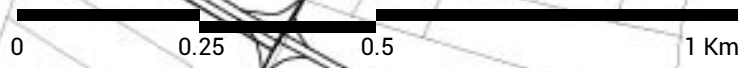


Fig. 47: Access to Transportation Map

Access to Public Facilities at Al Basatin Neighbourhood

Health Facilities:

There are no public health centres within the Al Basatin Neighbourhood boundaries. However, there is one public health centre in the nearby neighbourhood that is accessible to 10.2% of the Al Basatin's residents within a 5-minute walking distance around the neighbourhood's boundaries. Additionally, based on the SDG indicators analysis, 85.2% of the neighbourhood's residents have access to the public health centre in the nearby neighbourhood within a 15-minute walking distance. Therefore, it is well served with healthcare facilities.

Educational Facilities:

There is one public school within the Al Basatin Neighbourhood, and a few other schools in the surrounding neighbourhoods. Based on the analysis, 34.8% of the population have access to public schools within a 5-minute walking distance and 100% have access within a 15-minute walking distance. Accordingly, based on local standards and SDG indicators, the neighbourhood is well served with educational facilities.

Recreational Facilities:

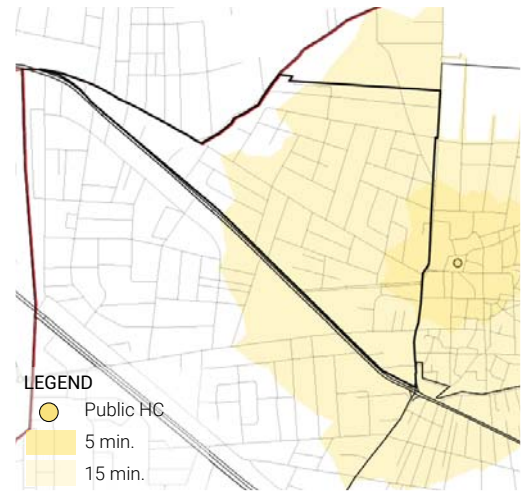
According to the street network analysis and the existing public spaces, the Al Basatin Neighbourhood lacks access to public spaces, with only 22% of the residents in the southern part of the neighbourhood having access within a 15-minute walking distance. At the neighbourhood level, this analysis confirms that there is a low percentage of residents that have access to public spaces.

Commercial Activities:

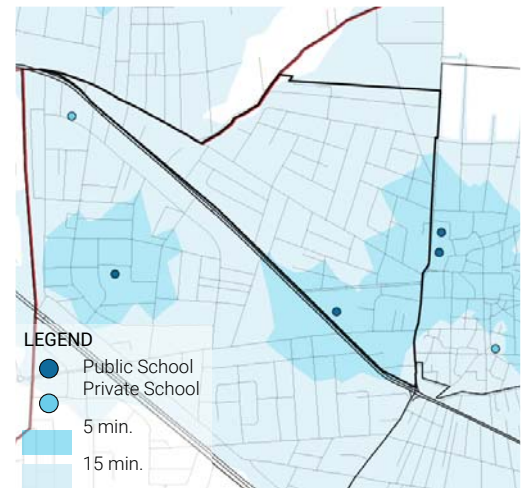
Most of the commercial activities are located on the southwestern street. As shown in the map, 54.1% of the neighbourhood is served with commercial activities within a 5-minute walking distance and completely served within a 15-minute walking distance.

These findings were validated by the neighbourhood's residents, with one resident explaining, "Buying goods and going to a health centre is fine in the neighbourhood, but there are issues with accessing a park, or having good roads or transportation." (Interview, Dec., 2021)

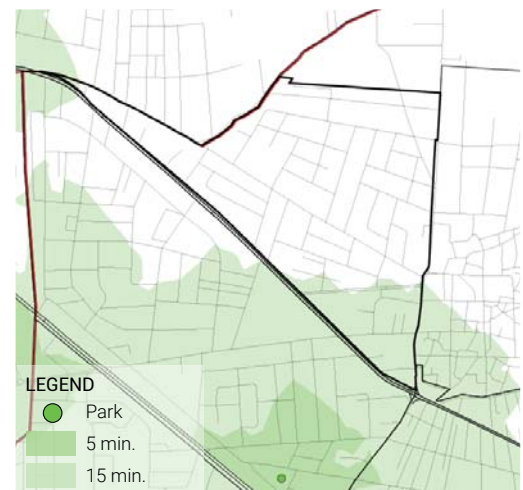
Health Care Facilities



Educational Facilities



Recreational Facilities



Commercial Activities





LEGEND

- Neighbourhood Boundary
- Main Road
- Commercial
- Public School
- Private School
- Park
- Public Health Centre

**POPULATION DENSITY
PEOPLE PER 10 DONUMS
(1 HECTARE)**

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- 300 - 655

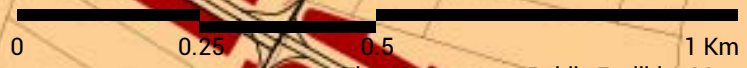


Fig. 48: Access to Public Facilities Map

Al Sarih District and Al Afrah Neighbourhood Contexts

Consisting of 5 neighbourhoods, the Al Sarih District covers an area of 28.3 km² and accommodates a total of 46,003 inhabitants. The Al Afrah Neighbourhood within the Al Sarih District was selected based on the findings of the refugee density and service-coverage analysis, which revealed that it has a high refugee presence and limited access to public facilities, services, and transportation, specifically in comparison to the other neighbourhoods within the district.

The Al Afrah Neighbourhood has an area of 1.2 km², a total population of 8,658 inhabitants, and accordingly a population density of 7215 persons/km². It is one of the neighbourhoods in the district that has been significantly affected by the influx of Syrian refugees. Accordingly, refugee residents consist of 37.4% of the Al Afrah's neighbourhood population, whereby 36.6% are Syrian, 0.02% are Iraqis, 0.8% are Palestinians. In reality, the percentage of Palestinian refugees is actually higher than the aforementioned percentage. However, because many Palestinian refugees living in this district have Jordanian citizenship, they were not incorporated into this calculation.

Furthermore, around 96.6% of the land in the neighbourhood is designated for residential purposes, whereby 6.3% of the neighbourhood's area is classified as type A, 42.9% is classified as type B, 37% is classified as type C, 2.6% is classified as type D, and 7.8% is classified type agriculture. Additionally, around 2.8% of the land use in the neighbourhood is commercial, 0.2% is religious facilities and 0.4% is governmental buildings.

The visual inspection of the neighbourhood found that housing generally seemed to be in good condition and structurally sound, with most buildings having two to three floors.

Al Afrah Neighbourhood represents the typology of a neighbourhood that lacks access to some infrastructure networks and public facilities.

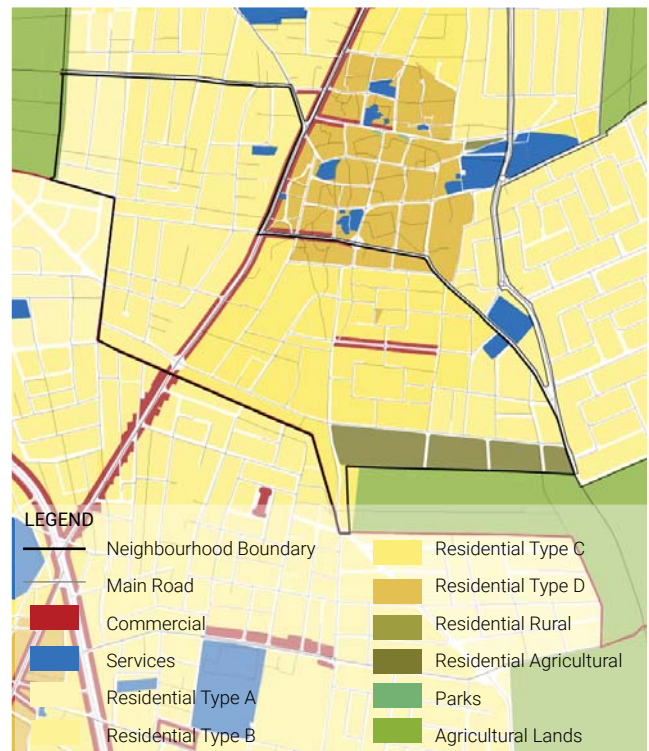
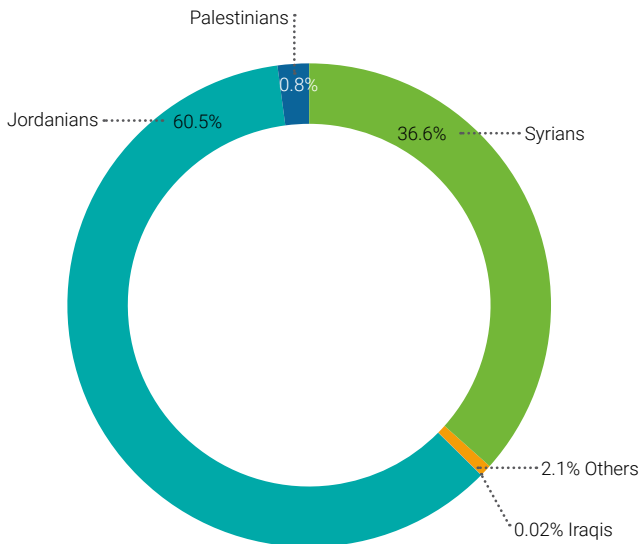


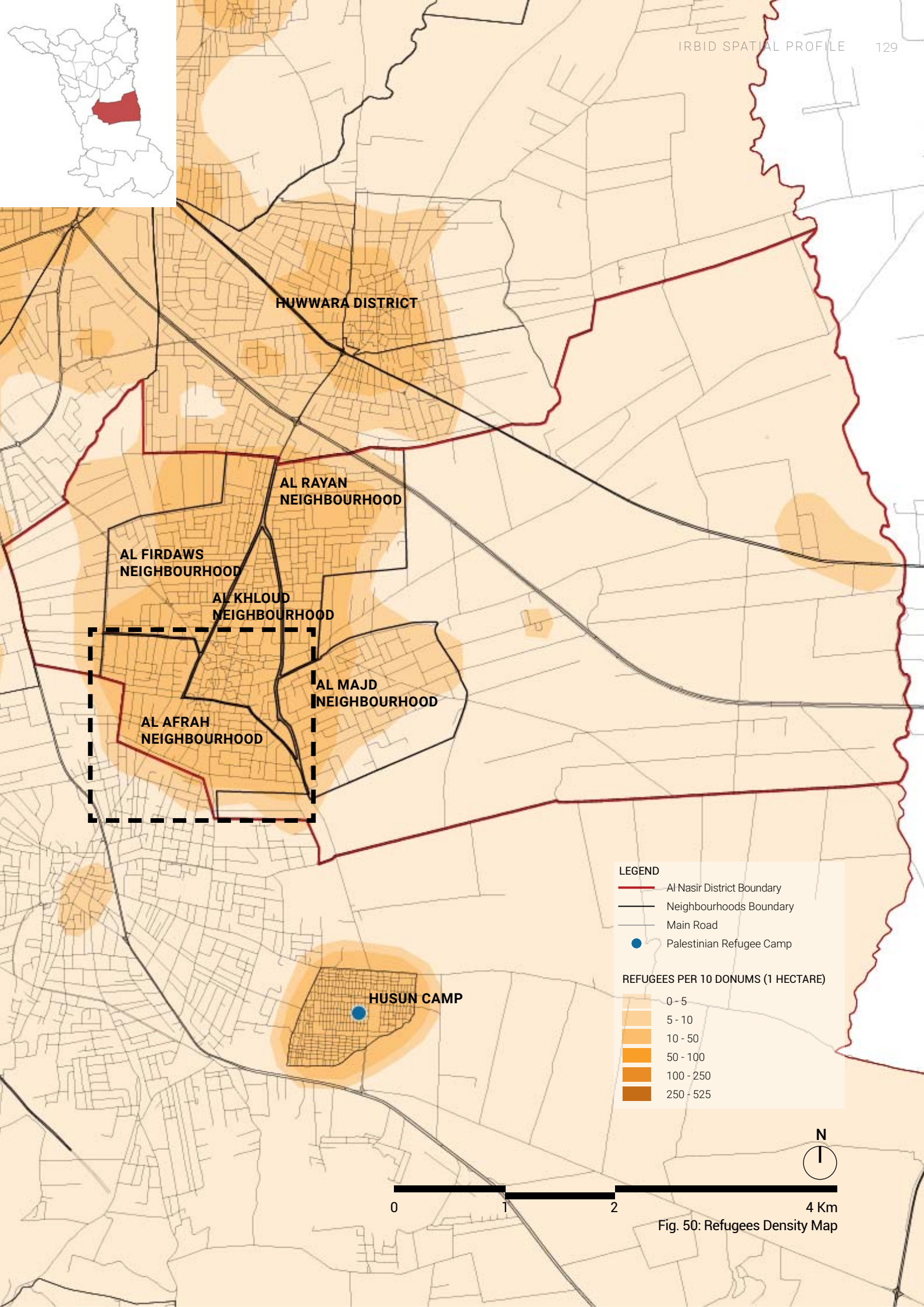
Fig. 49: Land Use Map



Population Nationality Breakdown at Al Afrah Neighbourhood



Housing Situation in xx Neighbourhood (UN-Habitat, 2021)



HUWWARA DISTRICT

AL RAYAN NEIGHBOURHOOD

AL FIRDAWS NEIGHBOURHOOD

AL KHLOUD NEIGHBOURHOOD

AL MAJD NEIGHBOURHOOD

AL AFRAH NEIGHBOURHOOD

HUSUN CAMP

LEGEND

- Al Nasir District Boundary
- Neighbourhoods Boundary
- Main Road
- Palestinian Refugee Camp

REFUGEES PER 10 DONUMS (1 HECTARE)

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 250
- 250 - 525



Fig. 50: Refugees Density Map

Access to Basic Services

Based on the available data, the map reveals that Al Afrah Neighbourhood is connected to the electricity, water, and sewerage networks. Additionally, a site visit was conducted to visually assess the challenges and situation on the ground as well as to interact with the residents in the neighbourhood.

Electricity Service:

The Al Afrah Neighbourhood is well connected to the existing electricity network.

Water Service:

The water capacity assessment results revealed that there is a relatively high demand on water network at the neighbourhood level, although there is access to the existing water network within the neighbourhood. Based on discussions with the residents, there is a need to upgrade the water network in the neighbourhood to improve the pressure of the water pipes, with one resident explaining, "Water comes but the pressure is very weak, so we need to use water motor pumps." (Interview, Nov. 2021). MoWI stated that an on-going project in Al Sarih District including Al Afrah to construct primary water pipelines and improve home connections.⁴⁵³

Storm-water Drainage System:

Al Afrah Neighbourhood is not served with the storm-water drainage network. Residents explained that there are challenges with the storm-water drainage system, with one saying, "In the wintertime, the main streets are flooded with rainwater, mud, and dirt drifting from the valleys that can't pass in the network." (Interview, Nov., 2021)

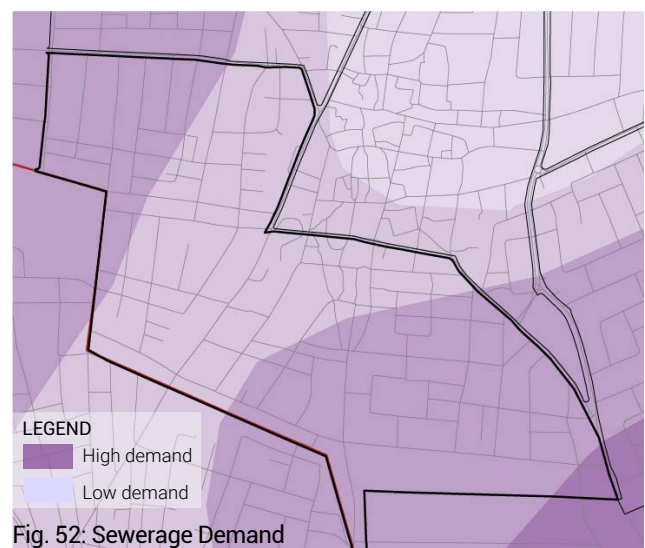
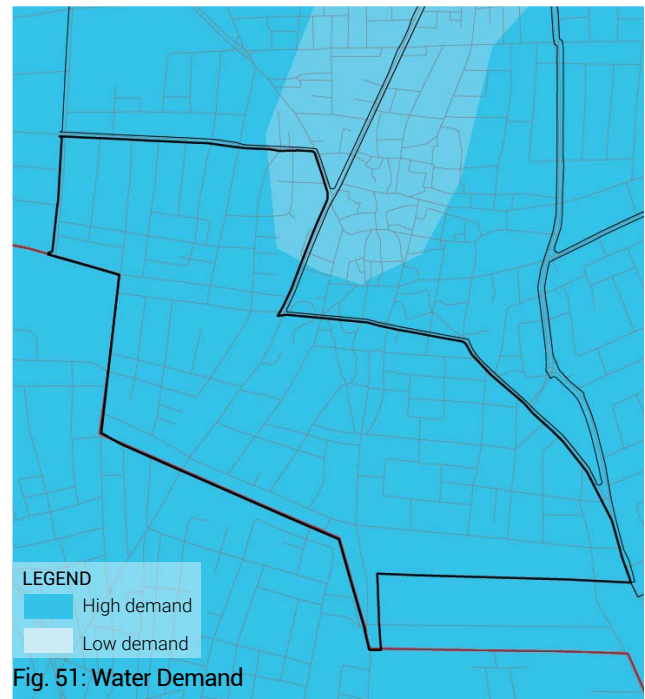
Sewerage Network:

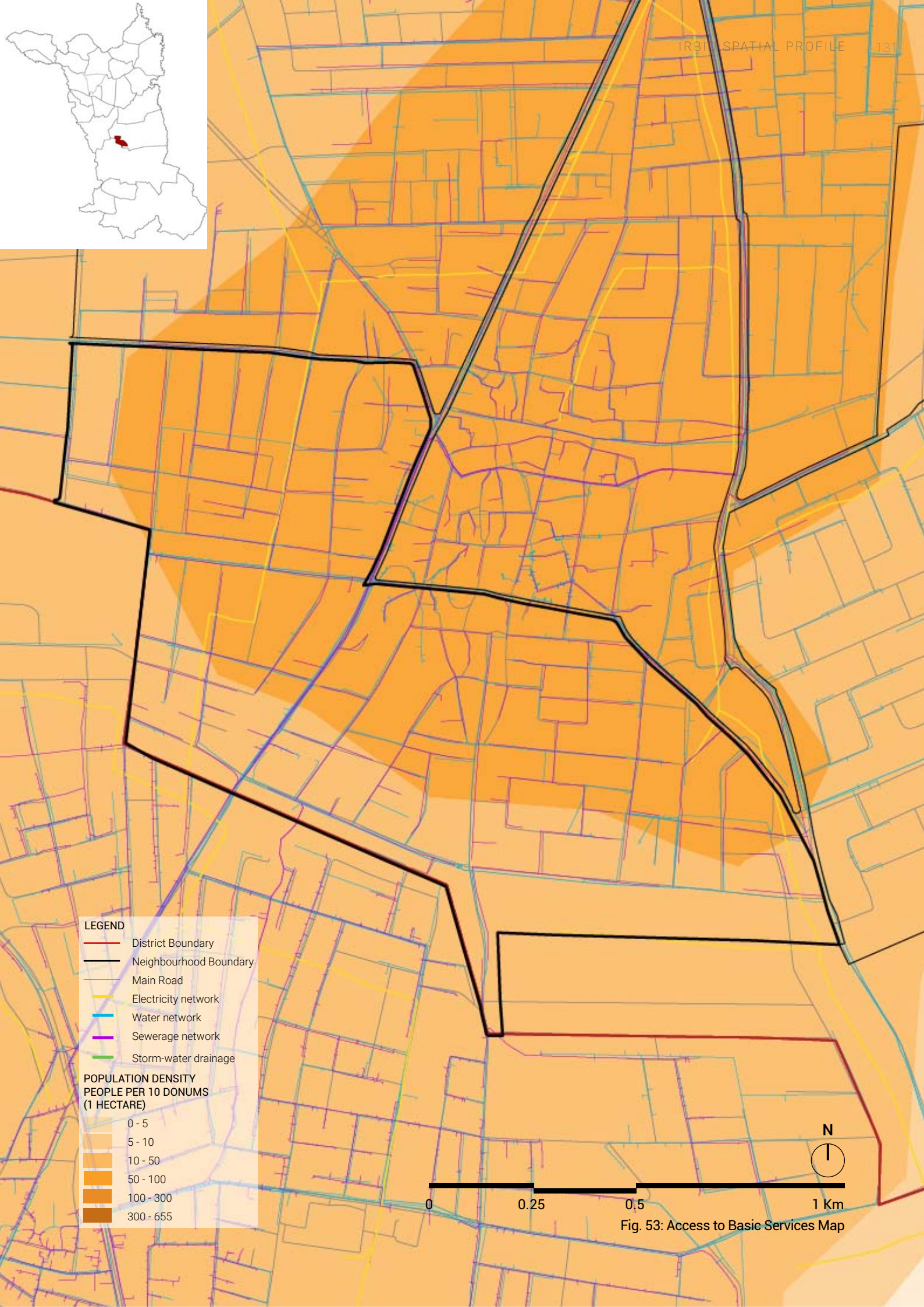
Although there is access to the existing sewerage network at the neighbourhood, the capacity assessment revealed that there is a relatively moderate demand on the sewerage network on both edges of the neighbourhood and relatively low demand in the centre.

Solid Waste Management:

This visit revealed that there is a weak solid waste collection system within the neighbourhood, as some parts of the neighbourhood are served with trash bins while others are not.

Accordingly, there is an evident shortage of trash containers in the neighbourhood. Overall, as was substantiated during the site visit, the solid waste infrastructure within the neighbourhood lacks capacity, which is, in turn, negatively affecting the quality and provision of basic services.





LEGEND

- District Boundary
- Neighbourhood Boundary
- Main Road
- Electricity network
- Water network
- Sewerage network
- Storm-water drainage

**POPULATION DENSITY
PEOPLE PER 10 DONUMS
(1 HECTARE)**

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- 300 - 655

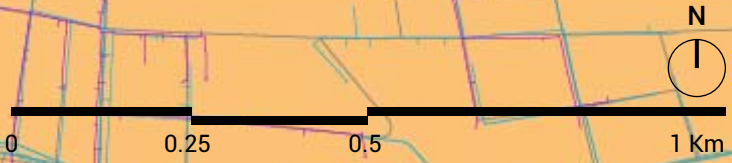


Fig. 53: Access to Basic Services Map

Access to Public Transport

The street network analysis measured the coverage of the existing public transportation services within the Al Afrah neighbourhood. This applied defined time intervals of 5- and 15-minute walking distances to the existing street network surrounding the bus stops and public transportation routes. The map shows the areas served within a 5-minute walking distance from the public transportation routes and bus stops as well as a 15-minute walking distance from bus stops. Based on this street network analysis that takes into consideration the spatial location of the existing bus stops and public transportation routes, the Al Afrah Neighbourhood was found to have no access to bus stops nor to public transportation routes. A resident of the Al Afrah Neighbourhood said, *"I have to walk more than 15 minutes to get to the nearest public bus, which makes me very late to my classes in the university. I prefer to use private cars."* (Interview, Nov., 2021)

Additionally, regarding the street network, most of the district suffers from deteriorated streets. This was made evident through the complaints from residents on this issue, with one saying, *"Al Sarih suffers from the bad conditions of the streets and we need to visit the mechanics because of the holes in the streets."* (Interview, Nov., 2021)



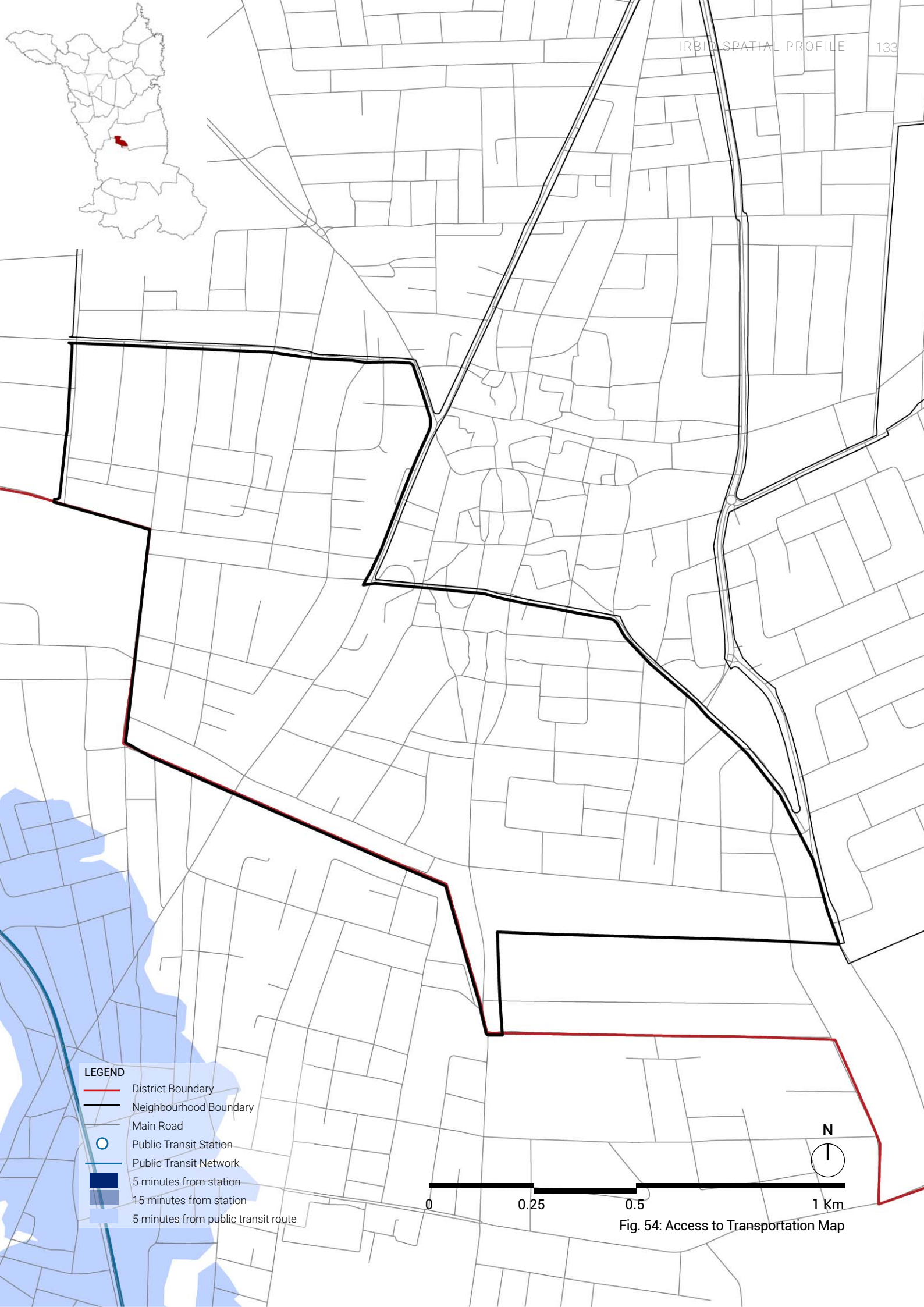
Road Infrastructure at Al Afrah Neighbourhood (UN-Habitat, 2021)











Road Infrastructure at Al Afrah Neighbourhood (UN-Habitat, 2021)



Road Infrastructure at Al Afrah Neighbourhood (UN-Habitat, 2021)



LEGEND

-  District Boundary
-  Neighbourhood Boundary
-  Main Road
-  Public Transit Station
-  Public Transit Network
-  5 minutes from station
-  15 minutes from station
-  5 minutes from public transit route

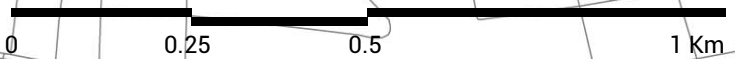


Fig. 54: Access to Transportation Map

Access to Public Facilities at Al Afrah Neighbourhood

Health Care Facilities:

There are no public health centres within the Al Afrah neighbourhood's boundaries. The two public health centres in the surrounding northern and southern neighbourhoods is accessible to 17.5% of the Al Afrah neighbourhood's residents within a 15-minute walking distance around the neighbourhood's boundaries. Accordingly, based on the SDG indicators analysis, most residents of the neighbourhood do not have access to healthcare facilities within a 5 and 15-minute walking distance. Therefore, the neighbourhood is not well served with healthcare facilities.

Educational Facilities:

There is 1 public school only within the Al Afrah neighbourhood, but the neighbourhood is served as well with public schools located in the surrounding neighbourhoods. Based on the analysis, 28.1% of the population have access to public schools within a 5-minute walking distance, and 100% have access within a 15-minute walking distance. Based on local standards and SDG indicators, the neighbourhood is considered well served with educational facilities.

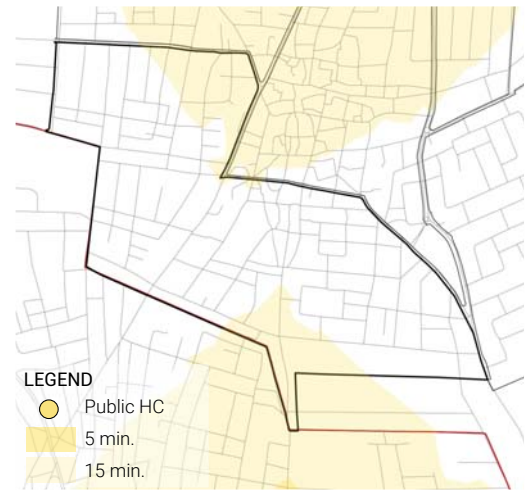
Recreational Facilities:

There are no constructed public parks within the neighbourhood itself, nor is there in the nearby neighbourhoods. Therefore, the neighbourhood is not well served with public parks. Residents of the neighbourhood validated these findings and agreed that the neighbourhood is not served with public parks, with one resident explaining, "The area needs public spaces and a swimming pool where I can take my kids to play. I had to order a taxi to go to King Abdullah II Parks during the weekend." (Interview, Nov., 2021)

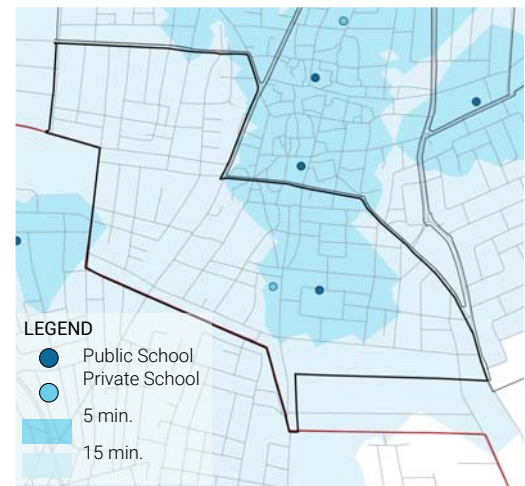
Commercial Activities:

The Al Afrah Neighbourhood is situated along the main street of the Al Sarih District, which is connected to the Amman highway, where most of the commercial and mixed-use activities are. As the map shows, around 62% of the neighbourhood residents are served within a 5-minute walking distance, and the residents are fully served with commercial activities within a 15-minute walking distance.

Health Care Facilities



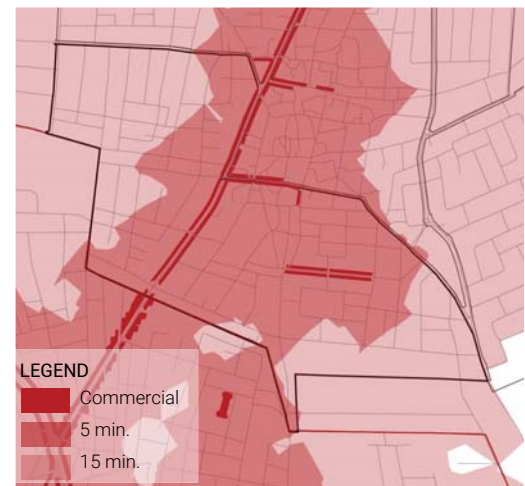
Educational Facilities



Recreational Facilities



Commercial Activities





LEGEND

- District Boundary
- Neighbourhood Boundary
- Main Road
- Commercial
- Public School
- Private School
- Public Health Centre

**POPULATION DENSITY
PEOPLE PER 10 DONUMS
(1 HECTARE)**

- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 300
- 300 - 655

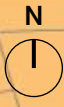
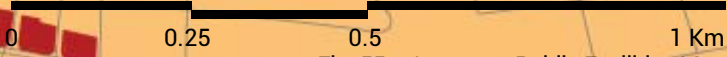


Fig. 55: =Access to Public Facilities Map

Challenges and Interventions Needed

Neighbourhood/ Typology	Challenges
<p>Al Ouda Neighbourhood: represents the typology of a dense neighbourhood with overloaded infrastructure networks.</p>	<div style="display: flex; justify-content: space-around; margin-bottom: 10px;">     </div> <ul style="list-style-type: none"> • Overloaded water network • Overloaded sewerage network • Lack of public park • Minimal areas within the neighbourhood have access to public transportation routes and bus stops within a 5 minute walking distance • Weak solid waste management system • Lack of safety due to extensive substance abuse • Poor housing conditions
<p>Al Basateen Neighbourhood: represents the typology of a neighbourhood that lacks access to public transportation and needs road construction.</p>	<div style="display: flex; justify-content: space-around; margin-bottom: 10px;">     </div> <ul style="list-style-type: none"> • Weak water supply • Poor road infrastructure • Lack of public park • No accessibility to public transportation routes and bus stops • Weak solid waste management system
<p>Al Afrah Neighbourhood: represents the typology of a neighbourhood that lacks access to public facilities and public transportation, in addition needs infrastructure network and road maintenance.</p>	<div style="display: flex; justify-content: space-around; margin-bottom: 10px;">     </div> <ul style="list-style-type: none"> • Weak water supply • Poor road infrastructure • Lack of public spaces • Lack of access to public health facilities • No accessibility to public transportation routes and bus stops • Lack of connection to the storm-water drainage system • Weak solid waste management system

Interventions Needed



- Upgrade the water network
- Upgrade the sewerage network
- Construct a public park
- Improve public transportation means
- Improve solid waste management system
- Raising awareness campaigns and exploring socioeconomic enhancement opportunities
- Improve housing conditions



- Upgrade the water network
- Improve road infrastructure
- Constructing a public park
- Improve public transportation means
- Improve solid waste management system



- Improve water supply
- Improve road infrastructure
- Construct a public park
- Construct a health facility
- Improve public transportation means
- Install a connection to the storm-water drainage system
- Add trash bins
- Improve solid waste management system

05

CHALLENGES AND OPPORTUNITIES

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.
- Irbid Governorate has the second highest share of population (2,003,800), which is primarily concentrated in Irbid City.⁴⁵⁴ 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.⁴⁵⁵
- Jordan has a young population profile, with 63% of its population under 30.⁴⁵⁶ This poses a challenge in providing sufficient education facilities and employment opportunities to accommodate the growing youth population.
- Refugees and host communities in Jordan are facing significant challenges stemming from the COVID-19 pandemic, which resulted in increasing unemployment and food insecurity while highlighting the inadequate access to basic services and needs.
- The population growth rate of GIM was 2.8 in 2017, higher than the growth rate of the Kingdom and the governorate, which are both at 2.6.⁴⁵⁷

Climate Change

- Jordan ranked 81 out of 181 in the NDGAIN index for climate vulnerability.⁴⁵⁸ It suffers from increasing temperatures, erratic rainfall, declining available water, and increasing heat waves, flash floods, droughts, and landslides.⁴⁵⁹
- 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.⁴⁶⁰

- The impact of climate change and extreme weather conditions, such as flash floods, droughts, and high temperatures, have further driven people into urban areas.

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 118.9 persons/km².⁴⁶¹ The total built-up area has doubled between 2004-2015, reaching 1,500 km².⁴⁶² The spatial expansion of urban areas is equivalent to 1% annually, approximately 15 km².⁴⁶³ This poses a risk to agricultural land as well as infrastructure and its financing.
- At Governorate-level, increasing urban footprint led to encroachment on agriculture lands, threatening green land availability.
- The available affordable housing initiatives (lands and apartments) are on the periphery of urban areas, leading to more urban sprawl and decreasing the connectivity to city services.
- At the city-level, municipal service provision and development plans follow the scattered urban growth, which reveals that planning is reactive rather than proactive.
- Irbid City has grown rapidly from a town of 0.28km² in 1924 to a city of 359.27 km² to date, with an urban area of 74.2km².
- Highly dense areas, including refugee-concentrated areas are located in the city centre, posing challenges on the quality of life, service provision, and planning.
- The radial plan of the city encouraged the growth outwards leading to further urban sprawl.

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,⁴⁶⁴ further raising land prices. Refugees are the most tenure insecure in Jordan.⁴⁶⁵
- Refugee camps in Irbid City suffer from poor housing conditions.

Accessibility and Connectivity

- Irbid's transportation sector faces many challenges. Commuters heavily rely on private modes of transportation, with 47.8% of households owning at least 1 private car.⁴⁶⁶ The lack of street network management, including road maintenance and parking lots, leads to traffic congestion in the city's urban areas.
- Inadequate mobility options within Irbid City have resulted in major environmental, economic, and social challenges.
- Public transportation in Irbid is slow, costly, and time-consuming, exacerbating vulnerabilities of refugees and people with low-income.
- While the public transportation network extends to the north and centre of Irbid City, other districts remain under-served. The lack of policies regulating privately-owned buses makes them unreliable and repels users.
- Women in Irbid face challenges accessing services due to distance to urban centres, which is associated with their accessibility to public transportation.⁴⁶⁷

Facilities and Infrastructure

- Irbid Governorate is the third most urbanised governorate. It witnessed rural-to-urban migration. This internal displacement, with the influx of refugees and weak urban planning, has added pressure on the limited municipal capacities and resources for service provision.
- Irbid Governorate shares the highest solid waste amount in the Northern region⁴⁶⁸, which combined with weak solid waste management and increased population demands, imposes health and hygiene risks in urban areas.
- Several areas within the Governorate are not

connected to the sewerage and storm-water drainage network.

- There is a minimal availability of public parks in many Jordanian municipalities and cities, including GIM.
- The weak maintenance management of the sewerage network and negative practices of residents lead to blockages or damaged pipelines.
- At the city level, the main challenges regarding the provision of electricity includes high pressure on electrical transformers, especially during the summer, resulting in frequent electricity failures.
- 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. It has also increased strain on natural resources, particularly water, which is already scarce.
- Weak infrastructure, hygiene, health, and educational services are among the most important challenges facing Palestinian camps. This is further compounded by high poverty rates and health issues.

GOVERNANCE, LAND MANAGEMENT & PLANNING CHALLENGES



Governance & Administration

- The boundaries of administrative institutions, like MoI, and planning institutions, like MoLA, GAM, and GIM, 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.
- Jordan's planning system lacks a National Urban Policy.
- Municipalities play a limited role in service provision due to limited political power, financial resources, and technical capacities to support local economic development.
- The multiplicity in urban planning institutions and actors results in weak coordination and overlapping responsibilities.

- 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 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.
- Although Irbid Vision 2030 addresses planning challenges in four Liwa, it hasn't been approved by the Higher Planning Council. The lack of comprehensive regional planning approaches, combined with slow approval processes and complex national administrative structures, impacts the regional and local development strategies.

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.⁴⁶⁹ This law remains temporary, with minimal attempts to update it.
- Jordan's legal land tenure system reflects a movement towards land privatization,⁴⁷⁰ resulting in unsustainable land use practices and severe land degradation, particularly of agricultural lands.⁴⁷¹ 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.⁴⁷²
- Palestinian refugee camps remain excluded from municipal land use and development plans, despite being permanent and well-established within Irbid's social and urban fabric, with their shelters connected to municipal services and inhabitants paying service tax.⁴⁷³

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, such as Amman Resilience Plan, Green Cities Action Plan.⁴⁷⁴
- Jordan is the second most water scarce country.⁴⁷⁵ 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.⁴⁷⁶
- The hydrological and meteorological events, caused by climate change, account for 97% of national disasters. The vulnerability of Irbid Governorate to various natural hazards is evident through geo-hazardous events.⁴⁷⁷ Additionally, 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.
- Ramtha districts are the most vulnerable areas to floods, while GIM is within the medium class of flood hazards.
- North of GIM is considered moderately dry, while south of GIM is mildly dry.
- At the city level, there is no dependency on alternative renewable energy sources,⁴⁷⁸ whereby more than 80% of residents depend on gas and electric water heaters rather than solar heaters (9.7%).⁴⁷⁹ There is a 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.

SOCIO-ECONOMIC CHALLENGE



Economy and Jobs

- 14.4% of Jordan's population lives in poverty.⁴⁸⁰ The poverty profile of Syrian refugees has imposed stresses on the pre-existing Jordanian poor.
- The poverty rate at the Governorate-level is 15% which exceeds the national rate,⁴⁸¹ increasing the dependency rates.
- 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 low-income revenues, municipal staff salaries account for half of their budgets. While more than half of Municipal budgets depend on governmental transfers, municipalities are not notified in advance about the amount, which hinders budget preparations.
- 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.⁴⁸² There is a mismatch of skills in the labour market.
- In Irbid Governorate, three Liwa's are considered poverty pockets,⁴⁸³ putting pressure on urgent plans to meet their service and employment needs.
- While 54% of revenues are generated from taxes, the municipal self-revenue collection remains low.⁴⁸⁴ Financial investments by GIM is limited at 1.0%.⁴⁸⁵
- GIM's inability to significantly reduce debt and annual deficits is impacting the financial stability and the city's structure of expenditures.
- Residents of Al Husun camp face economic

challenges, with 18% being unemployed and 23% having an income below the national poverty line.⁴⁸⁶

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.
- 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 Irbid 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 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, is currently in the final stages of formalizing the first Jordanian National Urban Policy that will set a guiding framework for urban development in the country, once endorsed.
- 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.
- In GIM, there are attempts towards establishing a proper database, which will enhance data collection and sharing as well as attract investments and donations for database improvement.
- In Irbid City, the spatially-close nature of Jordanian and

Syrian households gives the opportunity for refugee integration with Jordanians and for social cohesion between inhabitants.

SPATIAL OPPORTUNITIES



Land Availability

- 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.
- 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.
- In Irbid Governorate, the majority of the land cover is considered green, where 54% of the land use is classified as agricultural. Additionally, 52% of the land within Irbid City is agricultural. This gives the opportunity of using agriculture to boost the local economy.

Accessibility and Connectivity

- Irbid City is the strategic centre of the Irbid Governorate due to its administrative centre and close proximity to international borders. Additionally, Irbid City is strategically located on a major trade route, which attracts daily commuters from neighbouring towns and retail activities. This gives the opportunity for trading and business.
- There are plans to complete the ring road around Irbid City, which will improve traffic, reduce congestion, and connect the city's north and south.

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, and, accordingly, mitigate climate change impacts and GHG.
- At the city level, there are several climate change and sustainability projects, such as the Cleaner Energy Saving Mediterranean Cities (CES-MED) project funded

by the European Union, which aims to reduce the city's carbon footprint by 15% by 2030, specifically through: the solar or energy-efficient street-lighting project (ongoing), the energy efficiency measures in the household sector project (under revision), and the wheeling PV plants (16 MWp is under progress) to fully cover the city's demand (proposed). These projects, when implemented, will assist in building energy efficiency, reducing reliance on traditional energy resources, and increasing the use of renewable energy.⁴⁸⁷

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.⁴⁸⁸
- 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.
- Due to the COVID-19 impacts, there is an increase in unemployment rates, food insecurity, and inadequate access to basic services and needs. However, there is an opportunity of using the government's vacant lands for urban agriculture/permaculture in order to reduce unemployment, mitigate climate change impact, enhance the residents' socio-economic conditions, and achieve food security.
- Irbid Governorate is the second, after Amman, in terms of the number of economic enterprises in operation, with a contribution rate of up to 71% of the total economic enterprises in the north (about 16.7% at country-level).⁴⁸⁹ This means that the market is stable and has potential for more growth and investments.
- Irbid Governorate is characterized by the presence of many universities with outstanding academic standards, which contributes to the enhancement of the

local development process, advances in the research and development sector, and creates job opportunities.

- There are some major urban infrastructure projects, such as the City Centre Renovation and Revitalization Project, the are seeking financing. This project, when implemented, has the potential of integrating heritage, transport and mobility, public spaces, markets, and infrastructure, which will enhance the socio-economic value of the city centre and the residents' socio-economic conditions.
- In terms of municipal self-generated revenues of first category municipalities, GIM came in second highest for the year 2020 with an amount of 452,026,29JOD.⁴⁹⁰ Despite Irbid having the burden of refugees and providing services for one of the most populous urban centres in Jordan, it managed to significantly reduce debt and the recent annual deficits. This means that the market is stable and has potential for more growth and investments.
- The World Bank is working on supporting public financial management reforms at the local government level in Jordan, through their "Strengthening Municipal Financial Management Systems to Sustain Service Delivery in Municipalities Affected by the Refugee Crisis", which GIM was selected for. When implemented, the project will strengthen the institutional and financial systems, as well as the capacities of selected municipalities in Jordan, to improve local service delivery.

Facilities and Infrastructure

- Provision and investment in a sustainable water and sewerage systems, public transport, green/open and public spaces, and pedestrian infrastructure will significantly contribute to the residents' livelihoods, local economy as well as to attract investors and businesses. Additionally, 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,⁴⁹¹ highlighting an opportunity for future improvement.
- As a country, Jordan has quite an advanced healthcare system, whereby it was ranked by the World Bank to be the number one healthcare service provider in the region and among the top five in the world. It is one of the most desirable locations in the region for medical tourism, and the country is rapidly developing an international reputation for high quality and affordable healthcare.
- There is a planned project to construct an amusement park in Irbid City, which if financed and implemented, will be a permanent recreational area in Irbid that serves Irbid and the surrounding areas.

06

STAKEHOLDER WORKSHOP

Stakeholder Validation Workshop

On the 24th of January 2022, the UN-Habitat Jordan team held the Spatial Profile Validation Workshop using a hybrid modality (via Zoom and in-person). This approach was utilized to ensure conformity with the COVID-19 restrictions and measures of physical distancing.

Participants included representatives from relevant ministries and governmental entities, partners from Greater Irbid Municipality, private sector, development banks and agencies, and urban professionals.

The workshop intended to inform stakeholders about the work progress throughout the UPIMC Programme, provide an overview of the developed spatial profile and present the urban development situation and challenges related to the influx of refugees within the city of Irbid, obtain stakeholder perspectives on the developed spatial profile, challenges, and opportunities identified in relation to infrastructure investment and implementation within the selected city, and select one pilot neighbourhood from the three neighbourhoods that were analysed in Irbid for the second stage of the project.

Being comprehensive, 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, which is: Develop Strategic Vision and Scenario Building. This was followed by a brief introduction from a representative of Greater Irbid Municipality, where main actions and potential synergies between UPIMC Programme and their development plans were discussed. Next, a presentation of the national level of the spatial profile was showcased, highlighting its key findings and followed by an open discussion to validate the findings.

The second session entailed an in-depth presentation of Irbid spatial profile at regional and city levels, followed by an interactive exercise to validate the findings and open the floor for feedback and discussion. The session ended with presenting the three analyzed neighbourhoods. Followed by a voting exercise, to select one pilot neighbourhood in Irbid for the next phase.





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Qualitative Feedback

Below is a summary on the stakeholders' feedback regarding the quality of public infrastructure services and public facilities, including:

Public Transportation Sector:

While the public transportation network covers some areas of Irbid city, the quality of service has been negatively impacted due to the lack of time management and conflict among bus owners. Therefore, most residents depend on private cars and booking taxis via applications.

Public Water Service:

Although the connection to the water network is available and accessible in most areas, piped water is undrinkable. Thus, people tend to buy filtered water. Also, the pipes are old and need maintenance. Additionally, in summer, people suffer from water shortage. On the other hand, the MoWI mentioned that there are currently planned and ongoing projects with allocated budgets to improve the existing water network and connect residential areas within the three analyzed neighbourhoods, which aligns with the identified interventions needed for these neighbourhoods.

Sanitation (Sewerage) Service:

The stakeholders mentioned that there are some areas that are not connected to the sewerage network and still rely on septic tanks. Furthermore, the existing network in general needs rehabilitation. It should be noted here that MoWI mentioned that there is a current project with an allocated budget to improve the existing sewerage network at Al Sarih district. The project is still under the studying phase and is expected to be implemented within the upcoming five years.

Electricity Service:

The grid needs improvement as well as the power generators.

Storm-water Drainage:

Some urban areas suffer from flooding due to the lack of a drainage network which negatively impacts the residents.

Solid Waste Management System:

There is a clear challenge in the solid waste management

in Irbid. It is one of the cities targeted by the solid waste management plan reformation, to handle the increase in solid waste due to population growth and refugee influx.

Quality of Healthcare and Educational Facilities:

In general, these facilities' spatial distribution was described as very good. Health care and educational services are provided in most of the neighbourhoods. However, the quality of these services was described as poor. The capacity of these public facilities must be increased to accommodate the huge increase in population due to the refugee influx.

Quality of Recreational (park) Facilities:

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

Quality of Commercial Facilities:

Although the city is well covered spatially with commercial facilities, yet diversity is needed.



An image showing the GIM's representative

Neighbourhood Selection

The following section summarises the results of the voting exercise that was held after the analysis of the three neighbourhoods in Irbid City was presented. The participants voted on which pilot neighbourhood in Irbid should be selected for the upcoming phase of the Programme.

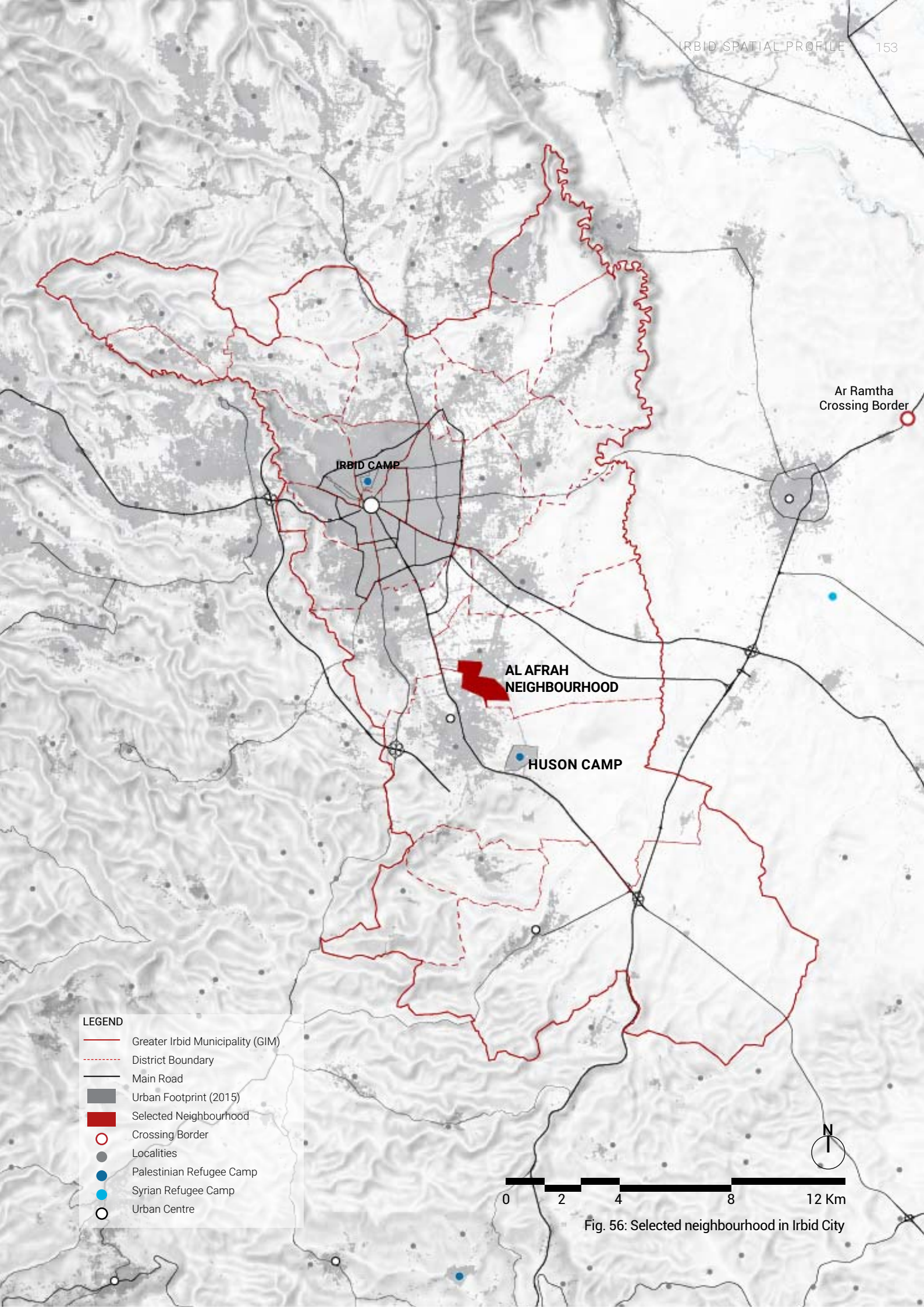
The results of the voting exercise were as follows:

- Al Afrah neighbourhood: 9 votes
- Al Basatin neighbourhood: 6 votes
- Al Ouda neighbourhood: 4 votes

On February 22nd, 2022, the UN-Habitat Jordan team held an in-person meeting with GIM to further discuss the GIM's technical comments on the spatial profile and the selection of the pilot neighbourhood.

The Al Afrah neighbourhood received the most votes and was highlighted by the GIM team as the neighborhood with the highest need for future improvement interventions.

Therefore, the selected neighbourhood for the upcoming stage (Develop Strategic Vision and Scenario Building) is "Al Afrah Neighbourhood" within Al Sarih District in Irbid city, which represents typology number three: the typology of a neighbourhood that lacks access to public facilities and public transportation, in addition needs infrastructure network and road maintenance.



LEGEND

- Greater Irbid Municipality (GIM)
- District Boundary
- Main Road
- Urban Footprint (2015)
- Selected Neighbourhood
- Crossing Border
- Localities
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Centre



Fig. 56: Selected neighbourhood in Irbid City

Selected Neighbourhood Validation Workshop

On the 20th of March 2022, the UN-Habitat Jordan team held the Neighbourhood Validation Workshop at Al Sarih Youth Centre located in Al Sarih district, within Al-Afrah Neighbourhood (the selected neighbourhood). 24 participants attended the workshop, most of whom were residents of the Al Afrah Neighbourhood, including heads of some CBOs and NGOs in the district as well as women, youth, elderly, refugees, to ensure the inclusion of diverse age groups, genders, nationalities, and abilities within the neighbourhood. Additionally, representatives from GIM, MoLA, and the livelihood unit at UNHCR attended the workshop.

The workshop aimed at informing the residents of the Al Afrah about the UPIMC Programme and its objectives; providing an overview of the developed neighbourhood spatial profile that presents the existing urban situation of their neighbourhood; and obtaining their perspectives on the developed spatial profile as well as the challenges and opportunities identified in their neighbourhood in relation to infrastructure, urban environment, transport, and public facilities.

The first session began with the UN-Habitat team giving an overview to inform the neighbourhood residents about the UPIMC Programme's process and objectives, as well as the intended deliverables of the upcoming stage, which aims to 'Develop a Strategic Vision and Scenario Building'. This was followed by a brief explanation on the spatial analysis of their neighbourhood. Next, two interactive sessions were held with the residents, where they were divided into two groups and had an open discussion to identify and map the existing challenges and opportunities in their neighbourhood from their perspectives.

The sessions ended with each group presenting their collectively identified challenges and opportunities under the four themes of infrastructure, urban environment, public facilities, and transport.





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An image showing the neighbourhood validation workshop

Challenges Identified by the Local Community

To trigger the discussion regarding the challenges during the interactive session, the UN-Habitat team prepared images displaying the different challenges at the selected neighbourhood, other neighbourhoods in Jordan, and in other countries in general.

At the beginning, the participants were divided into two groups. In cooperation with the UN-Habitat team member, each group assigned four of its members to sort the challenges into four main themes: infrastructure, urban environment, public facilities and transport.

Afterwards, the other participants were requested to choose an image, highlight the challenges in their selected image, and map the challenge if it exists in their neighbourhood.

The results of this session highlighted the existing challenges at Al Afrah neighbourhood from the local community's perspective, categorised into the following four main themes:

1 Public Facilities

- Health facilities

The residents explained that the public health centre located at Al Sarih district, but not within the Al Afrah neighbourhood is not enough and closes at 4 pm. Additionally, there is a lack of a 24-hour emergency centre and specialized staff. Availability of medicines in the existing health centre was also mentioned as a challenge.

- Recreational facilities:

The residents highlighted the lack of public spaces and open spaces in the neighbourhood such as football fields and parks. This forces children to play in the streets.

- Educational facilities:

According to the local residents, schools are relatively far away from the neighbourhood. In general, the school facilities within the neighbourhood are in a poor condition.

- Commercial Facilities:

The existing commercial facilities cover the basic needs but lack diversity. Accordingly, residents highlighted that they must reach other neighbourhoods to fulfill some of their needs.

- Religious Facilities:

Some residents highlighted the fact that there are no churches at the neighbourhood.

2 Urban Environment

The participants touched upon the lack of general cleanliness in the neighborhood, where solid waste management has been highlighted as a challenge, specifically regarding the unequal distribution of janitors and waste containers, with some areas lacking any waste collection services. The lack of awareness regarding waste disposal was mentioned as well, where some people utilize trash bins for other purposes. Additionally, the issue of stray dogs was raised as a challenge by the residents.

Regarding the existing street network within the neighbourhood, the residents mentioned that the streets are narrow, deteriorated, and lack signage to guide the vehicles' movement, which makes the streets unsafe in general. Furthermore, some residents use the streets to display and market their goods, which further narrows the cars' pathway. Additionally, they explained that the streets lack proper sidewalks. If available, the sidewalks will have walking obstacles, which makes it unfriendly to pedestrians and disabled people.

Another issue that was highlighted is the violation of buildings on setbacks, which furthermore affects the visual image of the neighbourhood.

Furthermore, the aviculture activities and cow and sheep farms cause bad odors, and lead to an unpleasant environment.



An image showing the challenges interactive session

3 Basic Services/Infrastructure

A general issue regarding infrastructure is the lack of coordination between official entities with regards to infrastructure works.

- **Street infrastructure:**

The residents intensively explained that the roads' infrastructure is generally deteriorated, with a lot of holes. Additionally, there are no pedestrian crossings.

- **Sanitation (Sewerage) Service:**

The lack of periodic maintenance for the manholes was frequently mentioned. Additionally, the fact that some manholes are kept open without lids threatens the safety of people, causes bad odors, and the emergence of different pests.

- **Water Service:**

Residents explained that there is a weak and uneven provision of water service in the neighbourhood.

- **Electricity Service:**

The residents explained that the neighbourhood is poorly lit. Additionally, electricity posts are located randomly between residential buildings and proximate to the upper floors resulting in a dangerous environment.

- **Storm-water Drainage Service:**

The residents explained that the rainwater floods in the direction of the cemetery. They also highlighted that the storm-water drains are not well located as it is not installed at the lowest points of the streets.

4 Accessibility and Public Transport

There are no bus stops or public transit routes within the neighbourhood. The only bus route runs along Al Sarih street and sometimes does not even cover its whole designated route, making public transport unreliable in relation to timing and route. Furthermore, due to the streets' bad condition, taxis refuse to take rides inside, to, and out of the neighbourhood. Additionally, the issue of traffic jams was raised as a result of the lack of parking spaces where people double-park and block streets.

Health Hazardous Area



Dangerous Stone Fences



Lack of Sidewalks & Ruined Sidewalks



Deteriorated Street





Deteriorated street
No Street-lights

Health Hazardous Area

Electricity post located at the middle of the street

Weak Water Provision

Deteriorated street
Ruined Sidewalks
Improper storm-water drains

Health Hazardous Area

Health Hazardous Area

LEGEND

-  Neighbourhood Boundary
-  Transpot Theme
-  Infrastructure Theme
-  Urban Environment Theme
-  Public Facilities Theme

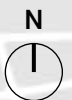
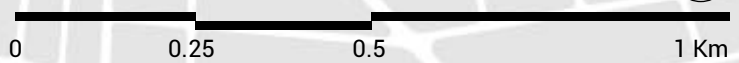


Fig. 57: Challenges identified by the Al Afrah Residents

Needs and Opportunities Identified by the Local Community

Following the same methodology used to identify the challenges in the previous session, the UN-Habitat team began the needs and opportunities identification session by explaining the importance of this identification for their neighbourhood. Accordingly, the participants highlighted their needs and the potential opportunities available in Al Afrah neighbourhood, which were categorised into the following four main themes:

1 Public Facilities

- **Health facilities**

The residents explained that opening a comprehensive health centre that provides a 24-hour emergency service is needed at the neighbourhood.

- **Recreational facilities**

The residents explained that they need a park and green open spaces within the neighbourhood. Additionally they suggested having a space for bazars. They also mapped the potential area to construct these facilities as shown in the map.

- **Educational facilities:**

According to the local residents, the highest priority intervention needed at the neighbourhood is a capacity building centre for training and general awareness raising. Additionally, they mentioned that they need a nursery. The map shows the potential suggested area for these facilities.

- **Commercial Facilities:**

More diversity of commercial facilities was requested by the residents, as the existing ones are very limited.

2 Urban Environment

To overcome a main challenge identified within the neighbourhood regarding solid waste management, residents explained that awareness campaigns that address waste disposal and recycling are significantly needed.

As for the visual aspect of the urban environment, the participants highlighted the need for the general beautification of the neighbourhood through adding more green elements, in cooperation with the residents. This can include: planting trees, implementing urban

agricultures on vacant lots and rooftops, improving the neighbourhood's street-scape and sidewalks. Additionally, they proposed relocating cow and sheep farms outside of the neighbourhood, and providing a solution for stray dogs.

3 Basic Services/Infrastructure

There was a general need that was identified by the residents which is to overcome the lack of coordination in the municipal services with regards to infrastructure.

- **Road infrastructure:**

The residents mentioned the need for road maintenance, adding pedestrian crossings, and enhancing the street-lighting in general.

- **Sanitation (Sewerage) Service:**

The need to upgrade the sewerage network was highlighted.

- **Water Service:**

Residents mentioned the need to improve the water service provision in the neighbourhood.

- **Electricity Service:**

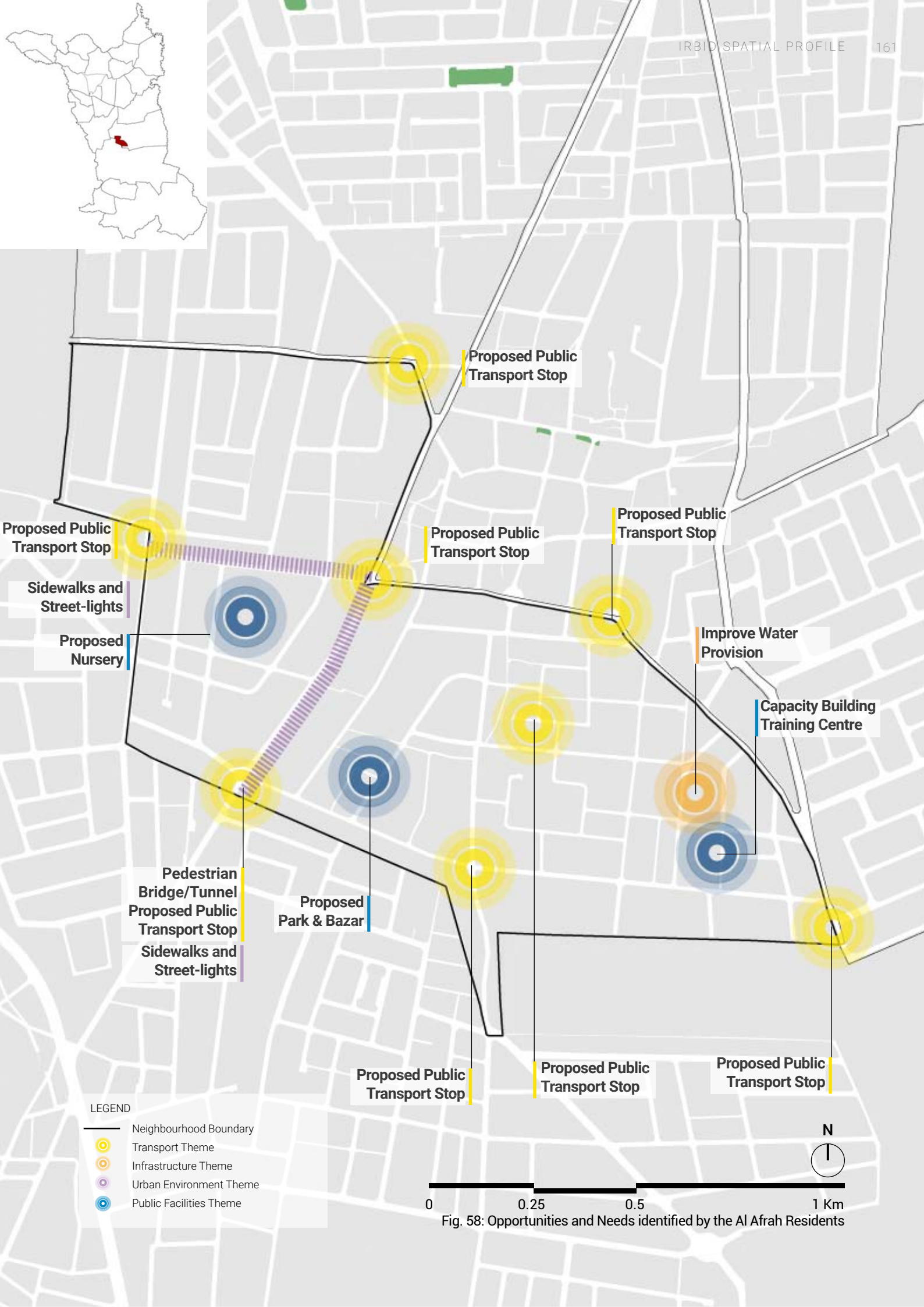
The residents explained that there are some electricity posts located on the streets that should be removed, as they pose a dangerous risk to the residents and any passerby.

- **Storm-water Drainage Service:**

The residents highlighted the need to maintain the storm-water drainage network and relocate the drains according to the proper levels.

4 Accessibility and Public Transport

The neighbourhood needs public transport stops and extended routes. Furthermore, the residents extensively highlighted the importance of constructing a pedestrian tunnel or bridge on Al Sarih street as indicated in the map.



Proposed Public Transport Stop

Proposed Public Transport Stop

Proposed Public Transport Stop

Proposed Public Transport Stop

Sidewalks and Street-lights

Proposed Nursery

Improve Water Provision

Capacity Building Training Centre

Pedestrian Bridge/Tunnel
Proposed Public Transport Stop
Sidewalks and Street-lights

Proposed Park & Bazar

Proposed Public Transport Stop

Proposed Public Transport Stop

Proposed Public Transport Stop

LEGEND

- Neighbourhood Boundary
- ⊙ Transport Theme
- ⊙ Infrastructure Theme
- ⊙ Urban Environment Theme
- ⊙ Public Facilities Theme

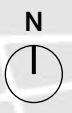
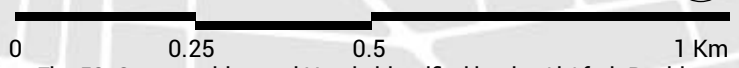


Fig. 58: Opportunities and Needs identified by the Al Afrah Residents

Conclusion- Challenges and Interventions Needed at Al Afrah Neighbourhood

Based on the spatial analysis conducted for the pilot neighbourhood in Irbid City (Al Afrah) and the challenges, needs, and opportunities highlighted by the neighbourhood's residents, this section summarizes the identified challenges and the needed interventions at Al Afrah in relation to the SDGs.



SDG 3: Good Health and Well Being

The analysis revealed that there is a lack of access to health care facilities within a 5- and 15-minute walking distance at the Al Afrah neighbourhood. This was validated by the neighbourhood residents.

Accordingly, **the needed intervention** is to construct a comprehensive health centre within the neighbourhood that includes a 24-hour emergency centre.



SDG 6: Clean Water and Sanitation

Residents described the water service as weak, uneven, and limited. They also explained that the sanitation network needs regular maintenance. This is aligned with the capacity analysis conducted that revealed that the water and sewerage networks within the neighbourhood are overloaded.

Therefore, **the needed intervention** is to upgrade the water and sewerage networks to accommodate the increase in population.



SDG 9: Industry and Infrastructure

The residents mentioned the need for road maintenance, installing speed bumps, adding pedestrian crossings, and enhancing the street-lighting in general. The field visits conducted by the UN-Habitat team confirmed that the roads need rehabilitation and more lighting. Furthermore, the residents also mentioned they suffer from poor storm-water drainage. Accordingly, **the needed intervention** is to rehabilitate the road infrastructure and to add more lighting poles in the neighbourhood. There is additionally a need to provide periodic maintenance to the storm-water drainage system and relocate the drains based on the proper levels.



SDG 11: Sustainable Cities and Communities

The analysis revealed the limited commercial areas within the neighbourhood, which was further emphasised by the residents. Additionally, they mentioned the lack of public recreational facilities in the neighbourhood.

Therefore, **the needed interventions** are to encourage diversity in commercial facilities, a nursery, and a capacity building training centre. Regarding the public recreational facilities, **the needed interventions** include creating more secured play areas, parks, and green open spaces, adding more lighting poles, shaded seating areas, and a bazar.

As for transportation, the analysis showed that the neighbourhood residents have no access to public transport means within 5- and 15-minute walking distances. Moreover, residents highlighted the need for public transport stops and routes, and that taxis refuse to take rides inside, to, and out of the neighbourhood because of its deteriorated roads. They also highlighted the lack of a pedestrian bridge or tunnel on the main street (Al Sarih Street), which threatens their safety. The **needed interventions** in this regard is to extend a public transport route into the neighbourhood and to add a fixed stop at the central area of the neighbourhood. Additionally, a pedestrian bridge/tunnel on the main street is highly necessary.

Furthermore, the unequal distribution of janitors and waste containers was highlighted as a challenge concerning solid waste management in the neighbourhood. Accordingly, **the needed intervention**, is to add waste containers and assign more janitors to serve the neighbourhood equally and efficiently.

Another **highlighted need** is the general beautification of the neighbourhood, where residents suggested increasing the green elements by adding trees and utilizing rooftops and vacant lots for urban agriculture. They also suggested relocating cow and sheep farms outside of the neighbourhood, and providing a solution for stray dogs.



An image of Al Afrah neighbourhood

07

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