

Prosperity Fund

GLOBAL FUTURE CITIES PROGRAMME

ANKARA

CITY CONTEXT REPORT



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November 2018

Global Future Cities Programme
ANKARA
City Context Report

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FUTURE CITIES PROGRAMME

Introduction

ABOUT THE GLOBAL FUTURE CITIES PROGRAMME

In 2015, the UK government created a new Cross-Government Prosperity Fund worth £1.3 billion from 2016-2021, in order to help promote economic growth in emerging economies. Its broad priorities include improving the business climate, competitiveness and operation of markets, energy and financial sector reform, and increasing the ability of governments to tackle corruption.

Emerging Economies still face considerable challenges such as uncontrolled urbanisation, climate change and high and persistent inequality which can lower long-term growth prospects. The Prosperity Fund supports the broad-based and inclusive growth needed to build prosperity and reduce poverty, but also make development overall more sustainable through the strengthening of Institutions and Improvement of the global business environment.

The Global Future Cities Programme (GFCP) is a specific component of the Prosperity Fund which aims to carry out targeted interventions to encourage sustainable urban development and increase prosperity whilst alleviating high levels of urban poverty. The programme will also create significant short and long-term business opportunities in growing markets, forecast to be regional growth hubs, including for UK exporters who are world recognised leaders in urban innovation.

The overall strategy of the Global Future Cities Programme is to deliver the Programme in two phases; a strategic development phase (2018), followed by an implementation phase (2019-2021). UN-Habitat, in collaboration with the International Growth Centre (IGC) and the UK Built Environment Advisory Group (UKBEAG), has been mandated by the UK Foreign and Commonwealth Office (UK FCO) to develop and undertake the strategic development phase. This in turn, will inform and shape the implementation phase,

and collectively provide further evidence for the overall programme.

The Programme builds upon a coherent series of targeted interventions in 19 cities across 10 countries, to support and encourage the adoption of a more sustainable approach to urban development. In general, the proposed interventions aim to challenge urban sprawl and slum developments, thereby promoting more dense, connected and inclusive cities that in combination contribute to prosperity, achieving the Sustainable Development Goals (SDGs) and implementing the New Urban Agenda (NUA).

The Global Future Cities Programme builds upon three integrated pillars, that will address key barriers to prosperity, in selected cities:

- **Urban planning** – technical assistance for spatial restructuring (Public space, Heritage and urban renewal, Urban strategies and plans, Data systems for integrated urban planning);
- **Transportation** – technical assistance to support cities to develop integrated transport systems (Multi-modal mobility strategies and plans, Data systems for multi-modal mobility);
- **Resilience** – technical assistance to develop strategies to address the impact of climate change and ensure development is sustainable (Flood management plans and systems).

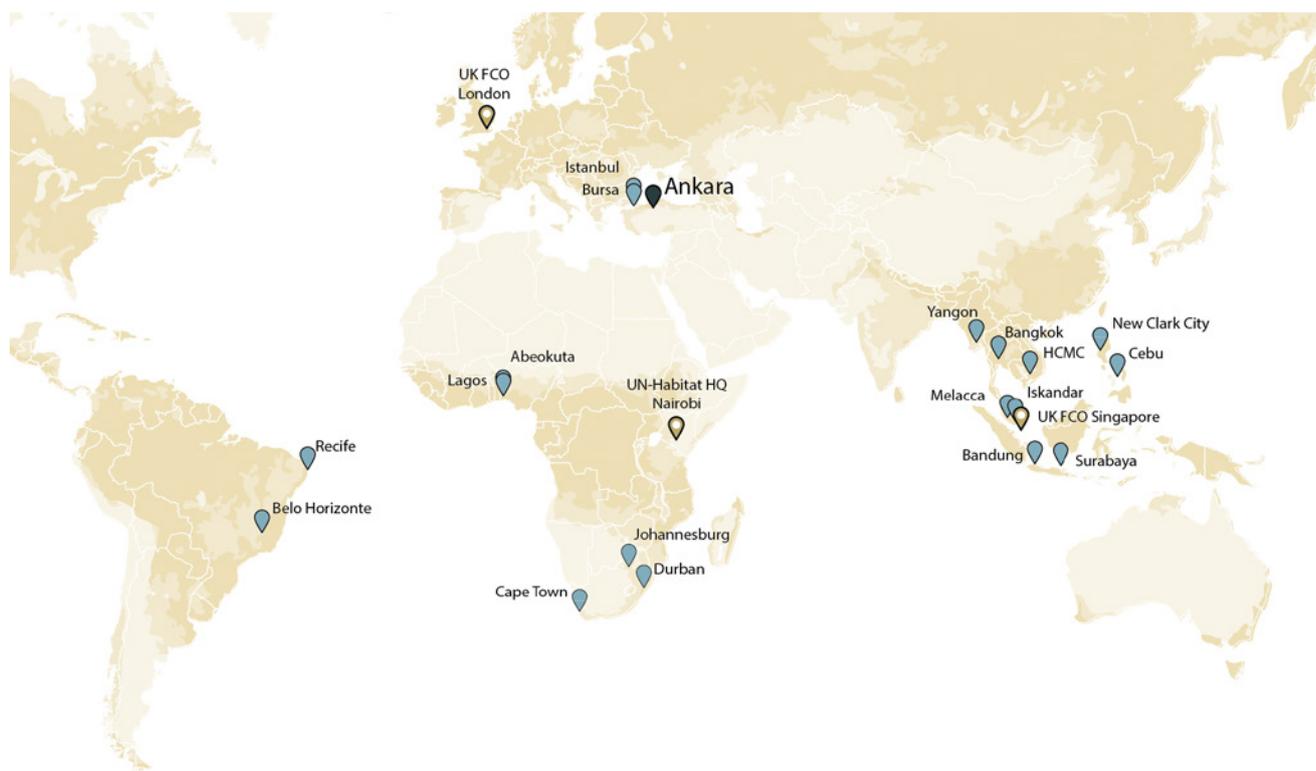
In order to capitalize on the proposed interventions and to ensure sustainability and impact in a longer-term perspective, the programme has a strong focus on technical support and institutional capacity development.

In many of the interventions, there is a particular focus on the potential of embedding smart/digital technology and data analysis platforms in urban governance and management processes. Integrating smart technologies is recognized as an instrumental area that significantly can improve the efficiency in the provision of key infrastructure services, enhance urban resilience, support evidence-based plans and strategies and promote integrated planning approaches across sectors.

INTERVENTION DEVELOPMENT AND VALIDATION

Based on initial scoping studies and government-to-government engagement carried out by UK FCO, the UN-Habitat team worked with partner local authorities and wider stakeholders to corroborate their city development strategies, and to confirm, enhance and develop the intervention proposals.

In each city, a Local City Specialist, supported by the national and regional country offices of UN-Habitat



and in liaison with the FCO local posts, took the lead in identifying stakeholders in a series of bilateral meetings, interviews and focal group discussions. This has collectively gathered information and provided more detailed knowledge and information on the City's visions and goals.

Based on this initial phase, a Charrette (planning workshop) involved high-level decision-makers from the public and private sectors together with civil society representatives. This facilitated discussion on the proposed and possible alternative interventions, related individual interests, technical opportunities and constraints, as well as political objectives. The outcome of the Charrette provided clarity on where stakeholders stand in relation to the strategic potential of the discussed projects and it allowed for the mobilisation of support.

At the same time, the Charrette allowed for the technical teams to proceed with the development of a Terms of Reference, outlining the specific scope and activities of each intervention. A final Validation Workshop assured consensus on the proposed projects and document's endorsement by the authorities.

Parallel to preparing the Terms of Reference, an evaluation of the interventions was initiated, aiming to address its feasibility within the local strategic context, identify potential impact on prosperity barriers and to explore the optimal delivery models. This process resulted

in a set of City Context Reports as well as an analysis of the technical viability of the interventions. The analysis aimed at both informing the development of the Terms of Reference and the future implementation phase of the Programme.

THE CITY CONTEXT REPORT

Objectives

A City Context Report is provided for each city of the Global Future Cities Programme. It serves as a tool to frame the proposed Programme interventions within the characteristics and pre-conditions of each city.

The Report targets a variety of stakeholders in the Programme: administrators, city managers, policy makers, legislators, private sector actors, donors, and local as well as international researchers and knowledge generators. The Reports also provide UKFCO the contextual setting of each proposed intervention, and can in addition, be used by the Service Providers as an entry point for the implementation phase.

By addressing the specific challenges facing each city, the Report illustrates how the interventions can work towards inclusive prosperity and sustainable urban development. The benefits of each intervention, however, cannot be achieved without certain enabling conditions to ensure its success. Therefore, critical aspects for the delivery of the proposed interventions and its success from a long-term perspective are outlined. Using thematic

best practices and evidence from global learnings and research, contextualised recommendations are provided on the conditions necessary for the intervention to be viable and to reach a maximum impact.

Essentially, the City Context Report serves to ensure that all actors within the Global Futures Cities Programme are aware of the specific conditions to be considered in the delivery of the proposed interventions, on a case-by-case basis.

Set-up and Scope

The first part of the City Context Report (General Overview) provides an overview of the Global Future Cities Programme and introduces the city from the perspective of the urban challenge which the proposed intervention intends to address.

The second part of the Report (Urban Analysis) more critically and technically analyses a selection of factors which need to be considered or to be in place for the intervention to succeed, addressing its feasibility, potential impact on prosperity barriers from a long-term perspective.

The third part of the Report (International Alignment and Technical Recommendations) presents short- and mid-term expected outcomes as well as long-term potential impacts. It further elaborates the contribution of the intervention to the achievement of the SDGs and the implementation of the New Urban Agenda as well as the programme objectives of the Prosperity Fund.

As the City Context Report is tailored directly to the Programme interventions, the analysis does not aim to comprehensively present all aspects of urban development. It does not elaborate on long term planning and transformation strategies, the effectiveness of policy or urban legislation, nor the entire municipal financial system. As such, it also excludes urban policy recommendations.

However, the Report has the scope to illustrate the general capacity of the city for project delivery, and in this regard, make recommendations to support implementation of the interventions and reaching set goals. The City Context Reports will be part of knowledge management for the Programme to generate local information and data on the cities as well as identify gaps in knowledge, systems or governance.

Methodology

Urban Analysis

The City Context Report provides a general analysis of the spatial, financial and legal conditions in the city that

can either facilitate or hinder the implementation and the long-term sustainability of the proposed interventions in transport, resilience and urban planning.

This framework follows UN-Habitat's three-pronged approach, recognising the three essential components for a successful and sustainable urbanisation: 1. urban planning and design; 2. urban economy and municipal finance; 3. urban legislation, rules and regulations.

Firstly, the spatial analysis describes the existing urban context specific to the intervention. Urban mobility systems, vulnerability of the built environment, spatial form and trends are considered as possible challenges in urban management that the intervention can address.

Secondly, the financial analysis aims to identify the mechanisms in place by which the intervention could be sustainably financed in the long-run. This section outlines the city's municipal capacity, existing regional, national and international financial ecosystem and existing financing mechanisms at the municipal level.

Thirdly, from a legal perspective, the Report critically analyses how the intervention could be facilitated or challenged by the vision of the city and its governance hierarchy. Enablers and obstacles resulting from any relevant legislation, as well as sectoral frameworks (e.g. strategies, policies, planning frameworks and development plans, detailed plans of relevance) are also described.

This approach aims to offer implementing partners, stakeholders and donors a general context of the city and, with it, demonstrate the appropriateness of the intervention from a spatial, financial and legal point of view, while at the same time informing about potential barriers and enablers for its implementation.

Potential Impact to the Program Objectives and the SDGs

The Report also outlines the potential impact of the interventions, based on the specific activities and outputs proposed. Impact can arise from a complex interaction of context-specific factors, rather than as result of a single action, which makes it difficult to empirically quantify longer-run effects that go beyond the identification of program outputs. An empirical, comprehensive impact assessment is therefore not part of the scope of this report.

Nevertheless, the report outlines potential benefits that are only achievable under certain preconditions and activities. Thereby, short-, medium- and long-term outcomes are defined with reference to a project-cycle approach, which considers all the project phases from



Planning and Design through Building, to Operating and Maintaining.

Short-term outcomes are directly achieved through the implementation of the technical assistance support, within the 2-3 years scope of the Global Future Cities Program.

Mid-term outcomes are only realised once the intervention is executed through either capital investment, implementation of pilot projects or the actual enactment of legal documents, plans or masterplans, within a possible timeframe of 3 to 7 years.

The broader long-term impact of the interventions is linked to the sustainability of the interventions in a 7-15 years timeframe and relates to the operation and maintenance phase of the project cycle.

The City Context Reports further connect potential impacts to the Programme's objectives, taking into account also the Cross-cutting issues at the core of UN-Habitat's mandate from the UN General Assembly. Consequently, the Programme's objectives are summarized into five principles:

- Climate Change;
- Gender Equality;
- Human Rights;
- Youth;
- Sustainable and Inclusive Economic Growth.

Cross-cutting issues are addressed with explicit reference to the 2030 Sustainable Development Goals (SDGs) and the New Urban Agenda, in an attempt to ensure that the proposed interventions are in line with the design, implementation, review and success of the 2030 Agenda for Sustainable Development. Consistent with UN-Habitat's mandate, the SDG 11 Sustainable Cities and Communities is linked with the urban dimension of the other 16 goals as an essential part of the localisation of the SDGs. In this way, interventions can support localisation processes, to support local ownership and ensure SDG integration in sub-national strategies and plans.

Technical Recommendations and International Best Practices

The interventions proposed in the various cities of the Global Future Cities Programme were grouped into clusters according to their thematic entry-point, as an elaboration of the thematic pillars of Urban Planning, Transport and Resilience.

These clusters are:

- Public space
- Heritage and urban renewal
- Urban strategies and plans
- Data systems for integrated urban planning
- Multi-modal mobility strategies and plans
- Data systems for multi-modal mobility
- Flood management plans and systems

Combining the international experience in urban policy and project implementation of UN-Habitat and the leading academic research of IGC, each cluster was analysed to offer evidence-based recommendations for a successful Implementation and a maximised impact of the intervention. Specific reference was given to implemented plans and international best practices.

The recommendations inform the Planning and Design phase which coincides with the timeframe of the Global Future Cities Programme, and always aim for long-term sustainability of the interventions.



Fig. 1. Ankara City view of the new development areas (Source: Sara Thabit, UN-Habitat)

Ankara

GENERAL CONTEXT

Ankara is the capital of Turkey and its second-largest city after Istanbul. Located in the centre of the country, it is Turkey's political and administrative core. The city plays an important role in the development and integration of the national territory as a hub where several infrastructure networks converge. Ankara is well connected to the rest of the country by roads and railways.

Even though Ankara is referred to as a modern city, planned and built as the capital of modern Turkey in the first part of the 20th century, it is also quite relevant historically, such that several layers of the city's historical development can still be traced in modern Ankara. The city also hosts many significant archaeological sites.

With a current population of 5.445 million,¹ the capital has experienced rapid growth during recent decades. Additionally, official sources² forecast the city's growth will mean it will be come to more than 10 million people by the 2030s.

Despite many attempts of government and planners, Ankara's urbanisation process has been characterized by sprawl and fragmentation (Yasser, 2015). Although

the road network and the public transport system have developed significantly in the past three decades, the urban sprawl makes mobility a critical issue for the city's functionality (Batuman, 2012).

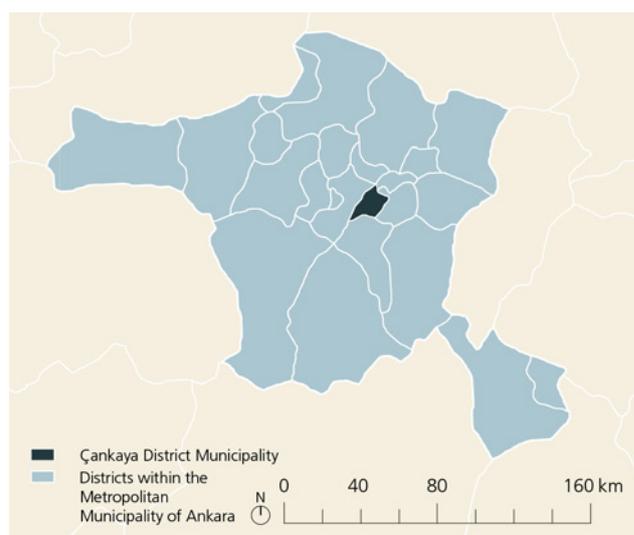


Fig. 3. Ankara Metropolitan Municipality region.

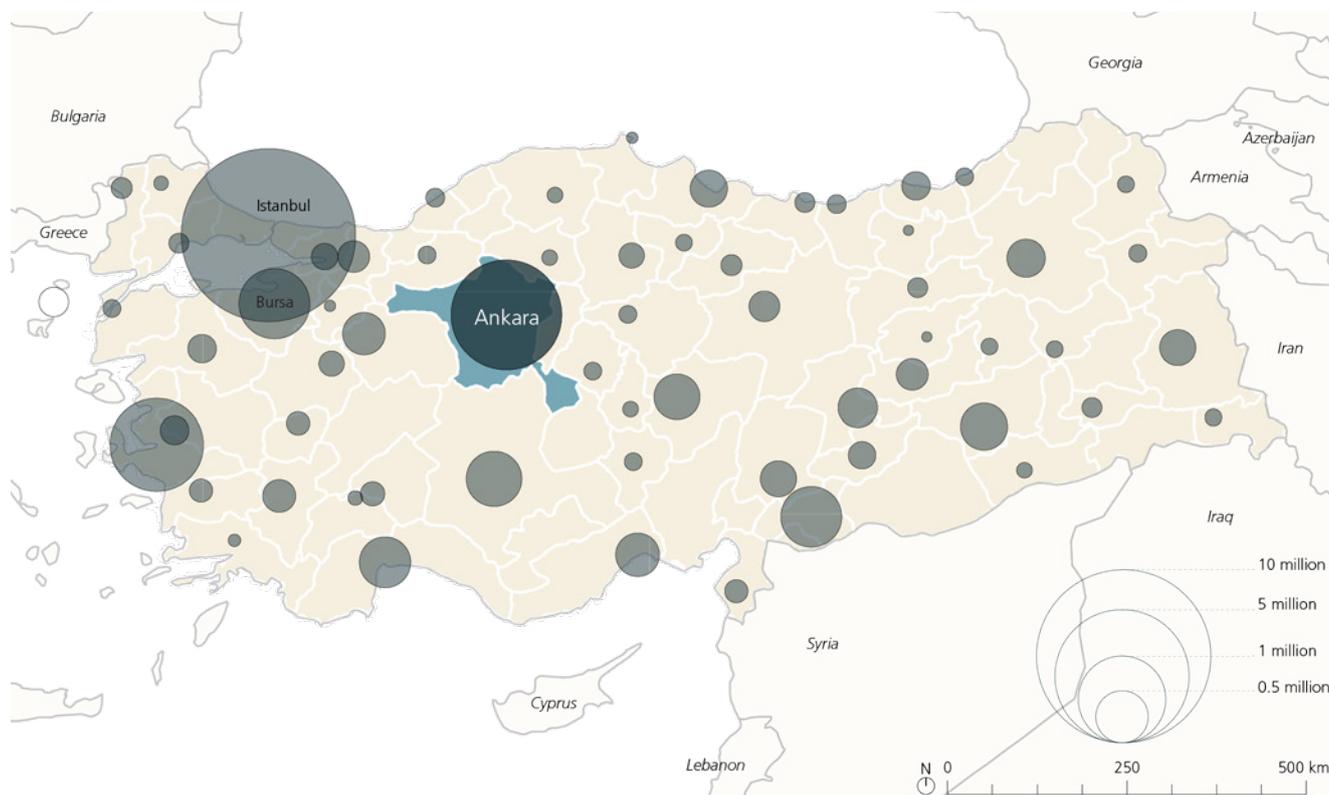


Fig. 2. Ankara and Turkey Provinces by population.



Fig. 4. Main Street of the Çankaya Municipal District (Source: Sara Thabit, UN-Habitat)

Culturally, Ankara has a dynamic and creative atmosphere, heightened by the academic environment of several important universities. The cooperation between academia and industry since the mid-1990s leveraged the economic development and the establishment of techno parks and R&D Centres. Although the main finance sector of the country is in Istanbul, Ankara is home to liaison offices and Anatolian branches of companies in almost every sector. Additionally, Ankara is the national centre for the defence industry and has

an important role in the ICT sector.

The city has a two-tier governance and planning system with the Ankara Metropolitan Municipality (AMM) covering the wider metropolitan area of some 25,000 km², within which 25 District Municipalities provide services on a local level. The Çankaya District Municipality, with almost one million habitants³ and 267 km², is the main district in the city and hosts the central historic areas as well as some government buildings and embassies.

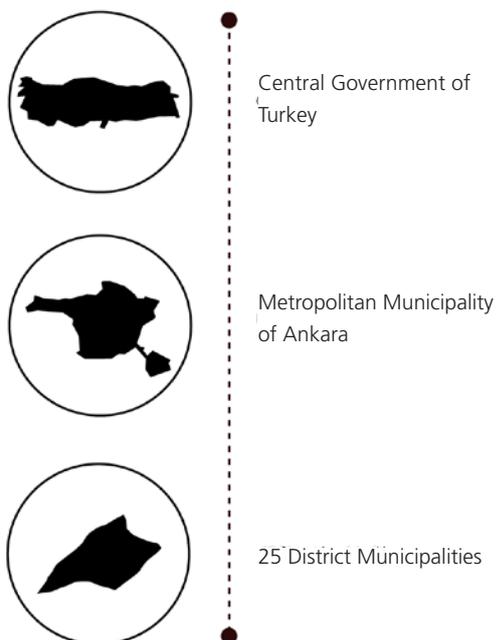


Fig. 5. Different tiers of Government.

INTRODUCTION TO INTERVENTIONS

A series of consultative processes that include a participatory workshop with local and national government and stakeholders including civil society, private sectors, and academia, as well as continuous bilateral meetings with the technical and political representatives of the Ankara Metropolitan Municipality and Çankaya District Municipality, and final validation took place within the first stage of the Global Future Cities Programme in 2018.

As a result, the City together with the UK FCO and UN-Habitat identified two complementary interventions under the umbrella of multi-modal mobility and public space improvement for the neighbourhoods of Ankara.

The first one is led by the Ankara Metropolitan Municipality, while the second one main stakeholder is the Çankaya District Municipality:

1. Technical Assistance to the Ankara Metropolitan Municipality for the preparation of a Bicycle Strategy and Master Plan for Ankara city-wide and Capacity Building for the implementation of Pilot Projects in a selected area.
2. Technical Assistance and Capacity Building to the Çankaya District Municipality to develop urban designs, implementation plans, and replicable methodologies for increasing quality and accessibility of streets.

MULTIMODAL TRANSPORT AND BICYCLE STRATEGY FOR ANKARA

Problem Statement

Rapid urbanisation and economic development in the past 50 years has contributed to increased prosperity, but led to an increasing dependency and ownership of private vehicles and development of car-related transport infrastructure. During the past two decades of increased car utilisation, Ankara has faced challenges such as traffic congestion, increased travel times and traffic accidents.

The rate of car usage for daily commutes in Ankara has risen by 20 per cent during the past 20 years, which has brought challenges in terms of parking, especially within the Central Business District. The ratio of car ownership has constantly increased and is predicted to carry on for the foreseeable future. Collectively, this has increased pressure on effective mobility planning and transport management.

Despite the negative consequences of car dependence, investments in urban roads are increasing. Similar investment for improving public transport and Non-Motorized Transport systems (NMT) have lagged behind. The environment for pedestrians and cyclists across the city is poor at present, with a prioritisation of road traffic within streetscapes and thus poor road safety.

Intervention Description

The Ankara Metropolitan Municipality has continuously been making efforts to increase the efficiency and use of public transport systems and develop incentives for reducing car usage. The Global Future Cities Programme aims to support the municipality in the preparation of a city-wide Bicycle Strategy and Master Plan, as well as assisting the pilot implementation development in a prioritized area of the city.

The recently prepared Transportation Master Plan for 2038, which is yet to be approved, proposes an extended network of bicycle roads; however, a Bicycle

Transport Master Plan does not exist for Ankara. Additionally, as was demonstrated in the charrette that took place within the framework of the Programme, most stakeholders support the promotion of public transport systems, especially non-motorized mobility, as a main strategy for reducing traffic congestion in the central areas of Ankara.

The proposed intervention seeks to integrate a bicycle transportation system within the existing mobility network of Ankara. It will address systemic improvements between bicycle-pedestrian and bicycle-motor vehicle interaction, the feasibility of park and ride systems integration and the design of a bicycle road network. The pilot project will develop the first stage for implementing the Bicycle Master Plan in a specific area of the city. Furthermore, the overall strategy will include subsequent phases to extend the network from the pilot to a larger area and to city-wide in the mid and long term. Finally, communication campaigns and capacity building will be part of the intervention in order to ensure the sustainability and ownership of the final outcome by citizens and institutions.

Bicycle mobility, as a green mode of transportation, will help to reduce the use of automobiles and diminish carbon emissions and air and noise pollution while contributing to better human interaction in the city. In the mid and long term, bicycle routes and cycling can increase the livability of the city and contribute positively in terms of public health, economic growth and environmental protection.

Main Stakeholder

Ankara Metropolitan Municipality

Possible Project Partners

- Central district municipalities
- NGOs
- Citizens assembly
- Chamber of Planners, Ankara branch

Thematic Cluster

Multimodal Mobility Strategies and Plans

Keywords

Multimodal transport; sustainable mobility; bicycle routes; bicycle sharing system; traffic reduction; pedestrian accessibility; quality of life; living standards and street layout

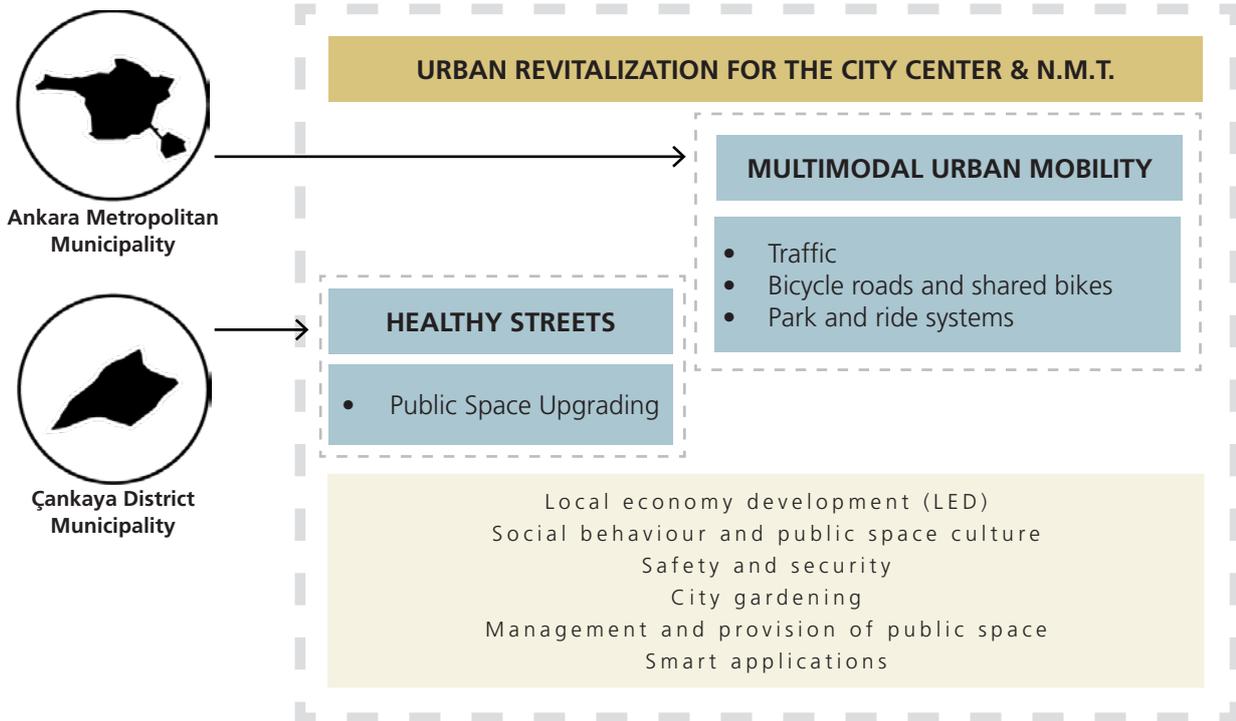


Fig. 6. Programme interventions.

The role of Ankara as the capital of Turkey and its central location establishes a model for the entire country and especially the Anatolian towns and cities. This brings to the project the possibility of expanding and replicating successful approaches and methodologies for new transportation modes in Turkish cities.

The main deliverables of this intervention are:

- Baseline Study for the integration of multimodal and bicycle transportation systems in Ankara
- Participatory diagnosis process for challenges, opportunities and priorities identification
- Bicycle Strategy and Master Plan for Ankara
- Implementation Action Plan for the short-, medium- and long-term
- Pilot implementation plan in a specific area of the city

INCREASING QUALITY AND ACCESSIBILITY OF STREETS IN ÇANKAYA NEIGHBOURHOODS

Problem Statement

There are structural deficiencies at a human scale in the city's built environment. One major issue is the highly-neglected pedestrian circulation and the lack of social interaction in open public spaces. Narrow sidewalks, often occupied by cars in the residential neighbourhoods,

leave little room for pedestrian circulation and nor do they allow the development of a socially active and inclusive street life.

Public interaction in the city is confined to reserved areas such as semi-public parks or buildings. This includes community centres, shopping malls and cafes.

As a result of the provision and quality of open public spaces, the air pollution and the adequate accessibility and connectivity in the city are challenges that Ankara needs to resolve.

Intervention Description

The Global Future Cities Programme aims to provide technical assistance and capacity building to the Çankaya District Municipality for improving the streets and the open public space of its neighbourhoods to favour a more liveable urban environment and to promote better life quality.

The intervention targets neighbourhood scale actions and the incentive revolves around changing the streetscape, including cross-sections, towards better open public spaces and urban quality. The development of living streets, designed primarily for the interests of pedestrians and cyclists, contributes to a more safe space, especially for children, elderly and women while, at the same time, reducing barriers for the disabled.

The approach to implement street redesign and upgrades, while increasing the proximity and accessibility of urban services and developing more accessible and safer open public spaces for pedestrians, has a high impact on the quality of life of residents. Furthermore, the streets are often catalysts for increasing urban economy and security and strengthening the sense of community identity and collective ownership.

The intervention will develop urban designs, implementation plans and replicable methodologies. Additionally, it will include neighbourhood design workshops, public information exchange tools and joint decision-making mechanisms at a local level. This localised planning approach can also use digital planning tools for better data utilization and, potentially, be integrated into the nationwide Smart City Strategy currently being developed by the Ministry of Environment and Urbanization.

The Programme will increase the municipality's capacities for onsite implementation as well as for developing and organizing inclusive planning practices. Additionally, a *Handbook for Healthy Streets* will be prepared and training for technical staff developed so the methodology can be upscaled and extended to other Turkish municipalities as a model.

The main deliverables of this intervention are:

- Methodology document for the prioritization of urban areas for streets and public space upgrading in Çankaya, regarding the SDG and New Urban Agenda criteria
- Çankaya district-wide Urban Context Assessment and the Strategic Plan for Streets Rehabilitation in Çankaya
- Urban Designs and Physical Implementation Plans for a selected (pilot) neighbourhood of Çankaya
- Streets Design Standards for Çankaya Municipality, developed through participatory processes and which can be adapted to municipal regulatory framework for urban planning and implementation
- Guidelines and Standards for "Healthy Cities"
- Dissemination Strategy for the municipality to promote the concept beyond the boundaries of the Çankaya municipality, preferably nationwide
- Training and capacity building to municipal staff for implementing further upgrading streets projects in Çankaya district
- Strategic Development Goals impact assessment of the intervention

Main Stakeholder

Çankaya District Municipality (ÇDM)

Possible Project Partners

- Ankara Metropolitan Municipality
- Elected neighbourhood headmen
- Citizens' assembly
- Chamber of planners, Ankara branch
- NGOs

Thematic Cluster

Public Space

Keywords

Public space; home zone; quality of life; cleaner air; safer environment; neighbourhood upgrading; social interaction; inclusive urban development; participatory planning; smart city applications; street layout

URBAN ANALYSIS

Spatial Analysis

URBAN DEGRADATION OF THE CITY CENTRE

Due to the urban expansion of the city during the past decades, the main functions of the traditional city centre are moving to the new Central Business Area in the western corridor of Ankara, especially to plazas and malls, without a comprehensive urban planning approach. Meanwhile, the central areas are suffering a process of degradation.

There is extensive work being carried out for the protection and renewal of the historical centre by the decree and support of the central government. However, this action is only concentrated on buildings' rehabilitation without a comprehensive renewal approach and improvements in social inclusion, open public space, traffic management and human accessibility are fundamental to this process.

Additionally, the centre is divided in two main cores that lack adequate connectivity: the historical centre in the north, Ulus Area, and the modern centre in the south, Kizilay Area. This physical division between the two parts found its origin in the urbanization history of Ankara due to social segregation dynamics. Ulus built on its traditional function of servicing the rural population and developed into an urban centre for the rural-urban migrants, as well as lower-income groups. Kizilay was built in the 1920s as a manifestation of the modern Turkish Republic and has been serving the urban population of predominantly middle- to upper-income groups.

Whilst the city's traditional centre is one of the main nodes of public transportation, it also carries a heavy load of pedestrian and vehicle traffic and has to cope with transit traffic as well. Furthermore, the accessibility between the two parts is hampered by the east-west railway line as well as the development of a large-scale urban equipment boulevard. With a series of hospitals, public buildings, university and schools, the boulevard is designed for the domination of motorised vehicle

traffic. The public transport connection between the two cores is almost exclusively with city buses, as the metro is mostly used only for long distances from and towards the city centre.

EXISTING CONDITION OF THE MOBILITY SYSTEM

Although the city of Ankara has an extended network of roads and public transport, the urban sprawl, led by the rapid growth during recent decades, raised traffic congestion as one of the main issues for the city⁴.

The urban transformations and measurements that encouraged vehicular traffic failed to provide an adequate provision of public space and circulation for pedestrians. In terms of the number of cars, Ankara surpasses even Istanbul, the most populous Turkish city, with 250 passenger cars per 1000 persons. This average figure for the whole metropolitan area is even higher within an urban footprint that is constantly increasing. Despite the fact that Ankara is below the average of European cities in terms of car ownership, it is expected to match them before long. The number of passenger cars per 1000 inhabitants in Ankara has increased by almost 40% in the past decade.

The main types of public transport in Ankara are urban buses (public and private), privately-operated minibuses, the Metro and light rail system (Ankaray) and the suburban rail (Ankara Banliyö Treni).

There is an extensive and dense bus network in Ankara operated through both private and public entities. The Metropolitan Municipality organisation called Ankara Belediye Otobüsleri (EGO) operates the Municipal Buses and there are private bus operators that are organized under a professional chamber known as ÖHO (privately-operated public city buses). Both types of buses use the same network and stops.

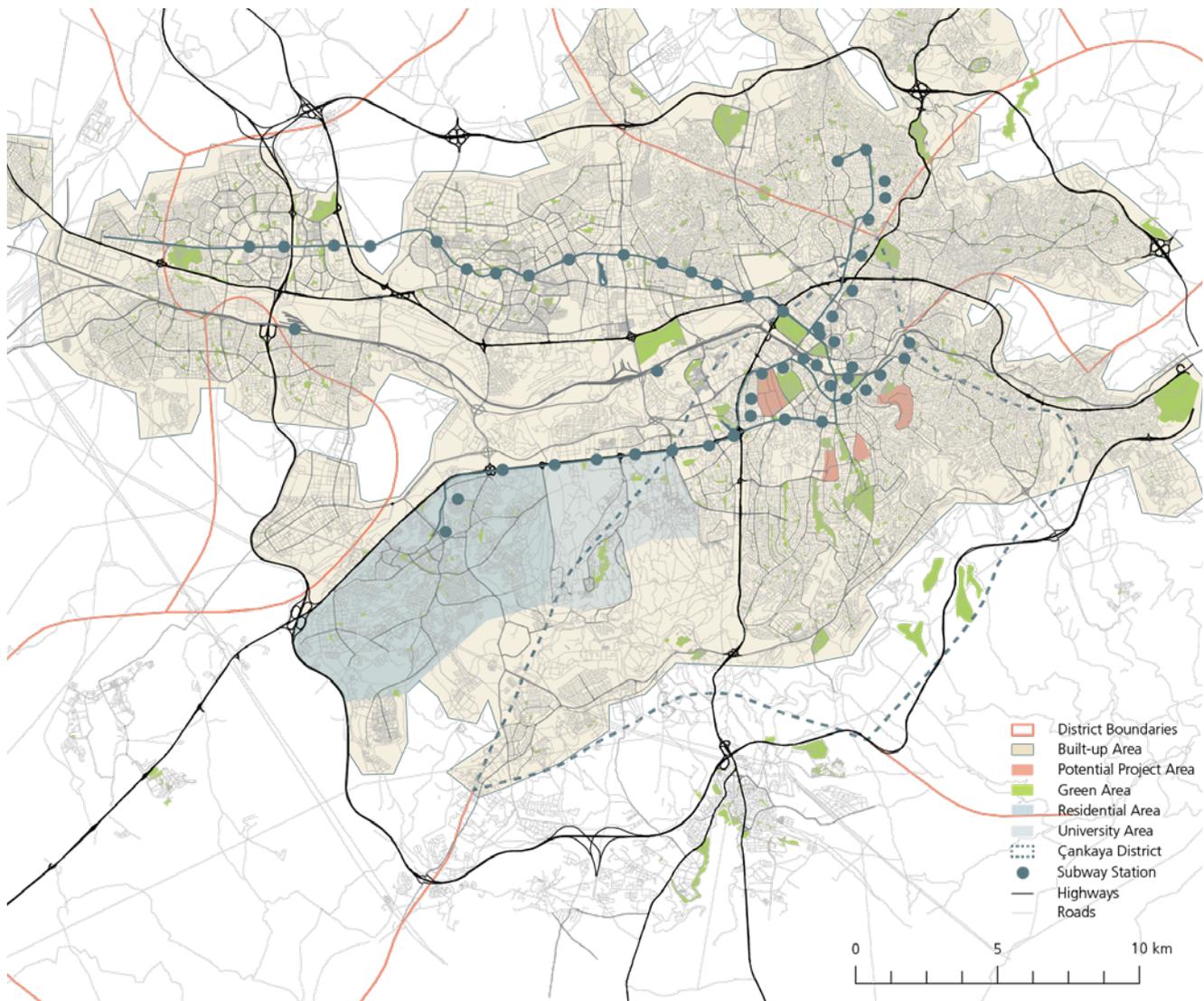


Fig. 7. Ankara urban extent and main transport infrastructure.

The minibuses, known as *Dolmuş*, constitute the second-most widespread and used public transport after the bus scheme, especially where there are no Metro lines. It is a privately-operated special service found only in Turkey. It follows specific routes and has fares fixed by the municipality⁵.

The Ankara Metro, named Ankara Metrosu, consists of two lines that intersect at Kizilay station, in the city centre. The first line runs from the north of the city to Kizilay, and the second, known as Ankaray (Light metro), runs from the west to the east, crossing through the city centre. They are mainly underground and have an extent of 8.7km and 14.7km and 8.7km, respectively.

The Ankara Suburban Railway (Ankara Banliyö Treni) consists of a single line of 37km that connects the city centre with the Northern West extension, and the industry zone (Sincan area) with the city centre and the low-income neighbourhoods in the east (Kayaş).

In Ankara, the average amount of time spent riding public transport is 71 minutes each day. More than 72 per cent of those riders spend more than two hours on public transportation every day. Additionally, commuters wait an average of 16 minutes; however, 46 per cent wait longer than 20 minutes. The average distance walked per journey is about 1km and the average distance that people ride in a single trip is almost 10km⁶.

Finally, parking in the city has become one of the biggest problems of its transportation system. The available data⁷ shows that 46.54 per cent of the drivers in Ankara park their vehicles on streets. Use of streets as a parking lot is one of the main reasons for traffic congestion.

MULTIMODAL AND BICYCLE MOBILITY

Currently, Ankara does not have any bicycle infrastructure in the urban area. The integration of a bicycle system as a complementary transportation type will constitute a shift of paradigm and citizen culture regarding urban mobility.

While informal housing developed on slopes of the bowl of Ankara, the planned urban development was made in flat terrain along the west, north and south of the city. However, the long distance between residential and work zones can be a barrier for bicycle journeys.

However, the flat topography in the central area of the city and the western corridor, as well as the strategic location of the main nodes among the east-west longitudinal axis, establishes a good basis for the implementation of Non-Motorized Transport systems such as cycling and walking.

The new Central Business Area along the southern axis of the western corridor connects the conventional city centre with the new residential urban development at the western extent (Çayyolu Area) over the main Universities' Area in Ankara. As it is one of the main economic nodes, it daily receives high loads of private vehicles, especially from the residential areas of the city. Additionally, due to the rapid urban development and the fragmentary planning, this area suffers from the lack of an accessible and attractive urban built environment of high quality, especially for pedestrian circulation.

Multimodality between the existing public transport and pedestrian and bicycle mobility is an opportunity in this context, especially in the city centre and the westward expansion area where the existing transportation situation is a major concern.

QUALITY AND ACCESSIBILITY OF THE STREETS IN ÇANKAYA NEIGHBOURHOODS

Çankaya District covers the southern core of the city centre (Kizilay area) and hosts some of the historic areas as well as most of the government buildings and embassies. Therefore, the urban degradation process of the city centre is also affecting the residential areas of Çankaya with visible consequences in the open public space.

The municipality is currently implementing urban transformation measures that mainly consist of renewing the building stock without improvements to urban services and public spaces for the increasing densities. Additionally, car dominance and dependency, illegal parking, inadequate design and maintenance

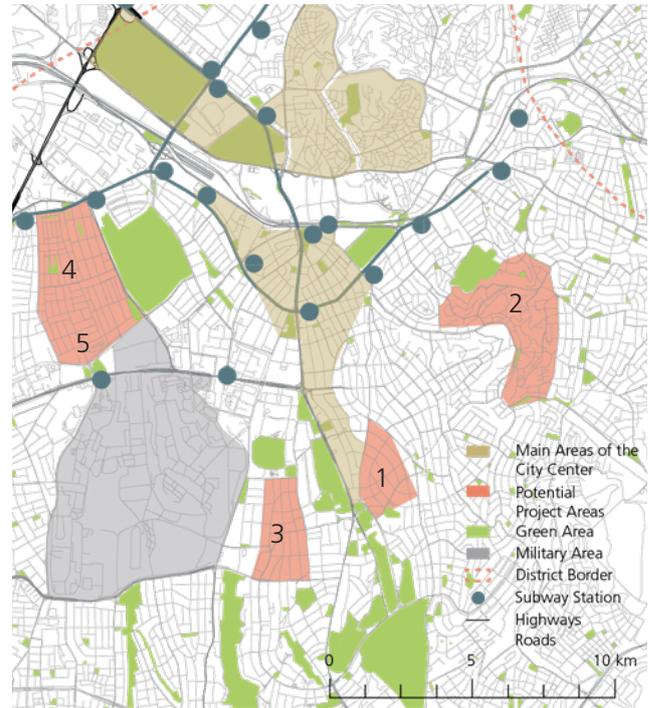


Fig. 8. Map of potential pilot areas

of the streets, insufficient urban furniture and physical barriers to pedestrian accessibility are common features in some Çankaya neighbourhoods.

The unsatisfying streetscape and public space provision has been one of the major causes of the migration from the central areas to the suburbs. Nevertheless, the public space opportunities in the western and south extension are confined to gated communities that are not accessible to all citizens.

Pilot areas: sample analysis

Five areas have been identified as tentative locations for the intervention in order to provide a better understanding of the specific intervention context. Although this selection does not define the final areas for the future intervention, they constitute a representative sample for studying the potential and viability of the Programme.

The pilot locations of this analysis are part of the southern extended area of the city centre, within the extension of Çankaya municipality. They include a sample of different urban environments within the District. While the areas 1, 3, 4 and 5 are middle- to upper-middle income neighbourhoods, number 2 is a low- and lower-middle income, informal area.

The approach to implement street redesign and upgrades, while integrating alternative systems of mobility in selected areas, has a high impact in traffic reduction and enhances urban upgrading and economic growth.



Fig. 9. Tunalı Hilmi Cd., Çankaya Municipal District (Source: Sara Thabit, UN-Habitat)



Fig. 11. Sample area #1 Çankaya neighbourhood.

Sample Area #1

This area is mainly flat in terms of topography and has a homogenous urban fabric. The blocks have rectangular shape that ranges around 100m per 250m. Most of them are characterized by perimeter occupation with a continuous front facing the street.

The average building height of this sector is around four levels, rising to five and six floors in the main streets. The principal use in the area is residential but the major streets also present a diversity of activities on the ground floor.

Residential use in the ground floor predominates in secondary (2) and tertiary (3) streets with front private gardens in the facades in some buildings. In general, there is a reasonable amount of vegetation in all streets but many trees in secondary streets belong to private plots.

Though parking invasion is more common on secondary streets, roadside parking exists almost everywhere. Pavements on the main streets are wider and more accessible but on the secondary and tertiary ones they are narrow and poorly-maintained.

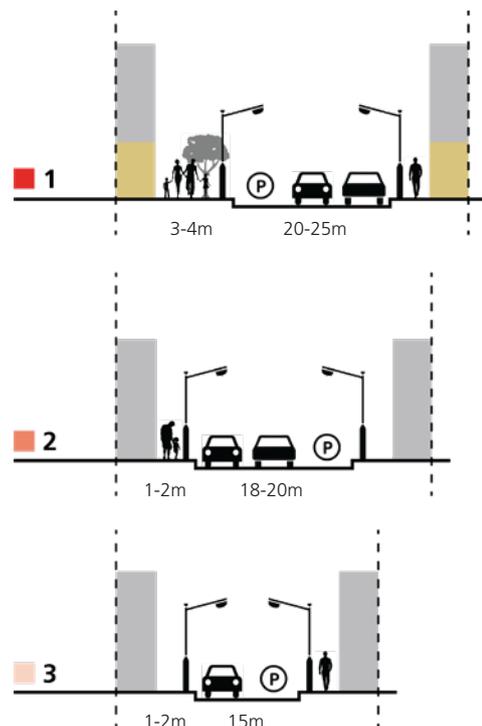


Fig. 12. Cross Sections Sample Area #1.

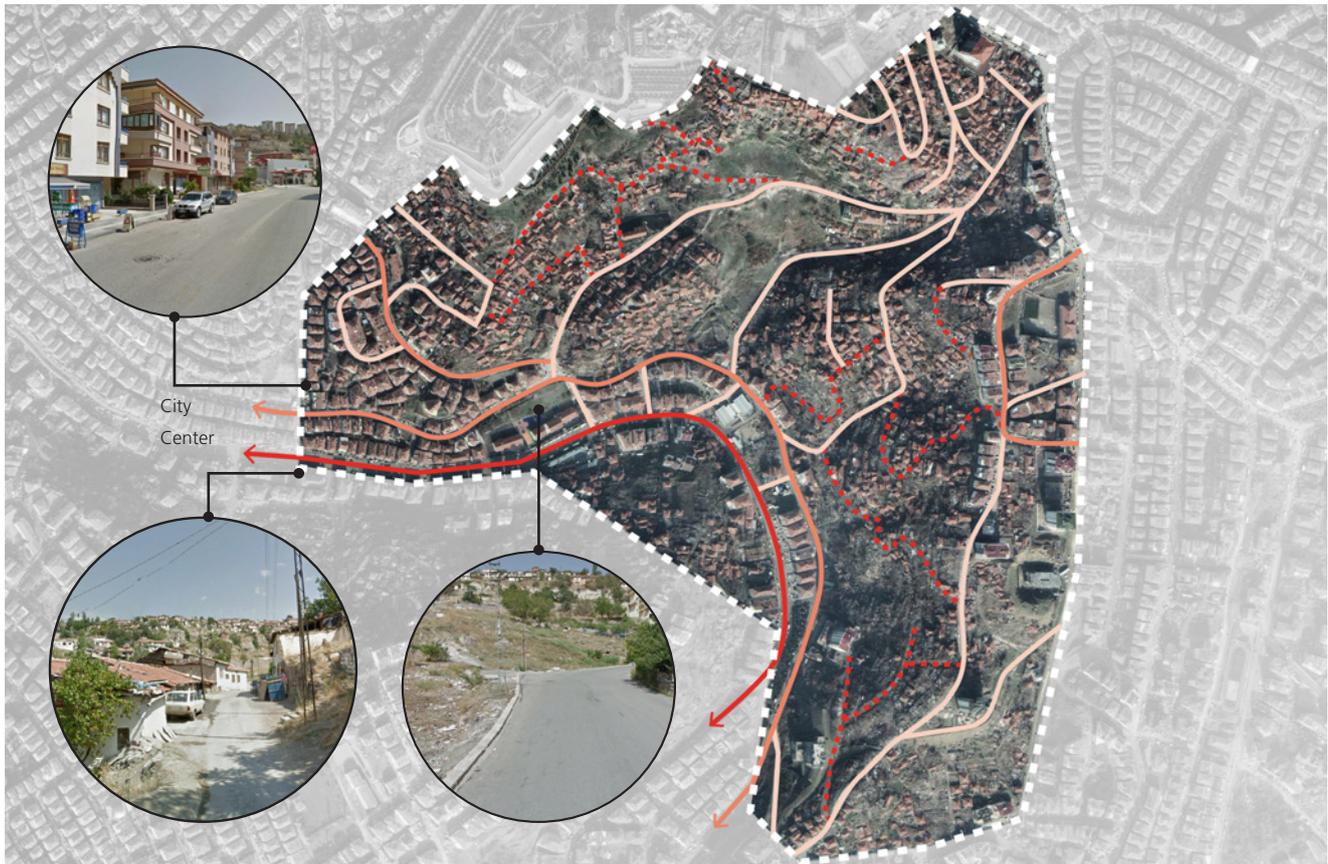


Fig. 13. Sample area #2 Çankaya neighbourhood.

Sample Area #2

This sample area is characterized by a hilly topography and no defined block pattern that resulted from a no-planned settlement.

The area is situated in the borders of the city centre, close to Kizilay central square. It is well connected with the central areas of the city through public transport service, especially the Dolmus and bus lines.

The average height of the buildings of the main streets (1) is around six floors while the secondary (2) ones range from two to four levels. Both are mainly residential use with commercial in the ground level floor.

The tertiary streets (3) are mainly one-level buildings. Many streets are precariously paved and there is no existence of sidewalks. Usually, the roads have enclosure walls along one side.

The built density is low and there are many empty areas. However, the open spaces are not well-maintained and lack public accessibility and presence of vegetation. Although the surrounding urban areas are served by good infrastructure, most of the sample area lacks public lighting and urban furniture.

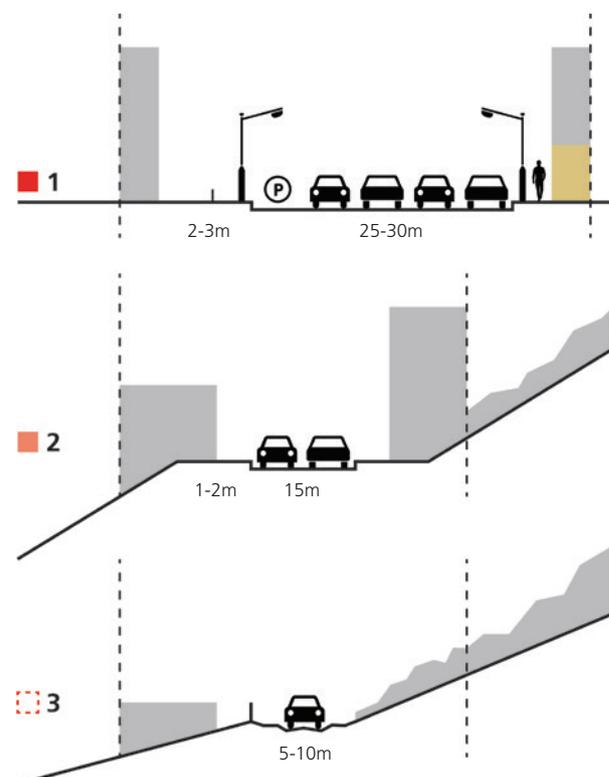


Fig. 14. Cross Sections Sample Area #2.

Financial Analysis

MUNICIPAL CAPACITY

In 2017, Ankara’s municipal budget stood at 5,902,000,000.00 Turkish Lira - TRY (or about 890 million USD)⁸, which translates into a budget per capita of around 164 USD. This represents a moderate budget compared to other cities of the GFCP. As a comparison with cities of similar size and income level, Johannesburg has a budget per capita of 740 USD and Belo Horizonte of 1000 USD. Internally in Turkey, this per-capita amount closely resembles an intermediate Turkish city such as Bursa (175 USD), yet it is considerably lower than Istanbul where the per capita spending is about 453 USD.

In 2012, new governmental reforms⁹ were instituted which reduced municipal dependency on central government transfers by providing larger cities with more competences. However, many cities in Turkey including BMM rely primarily on central government transfers to finance its expenditure. On average municipalities’ revenues depend on 45% on central transfers¹⁰.

For 2017, both the revenue and expenditure are estimated to be equal (standing at 5,902,000,000.00 TRY). A further breakdown of revenue and expenditure heads are in the figures below.

Figure 15 and 16 illustrates respectively the distribution of total revenue and expenditures for Ankara in 2017. The real value of revenues and expenditures across the various categories remain equal.

The Ankara Metropolitan Municipality consists of several district municipalities, with which it shares municipal responsibilities. Each district municipality receives transfers from the state government depending on its population size. Çankaya District Municipality is considered the cultural and economic centre of Ankara, and therefore, besides the population that resides within, there is a high commuter population that puts increased needs for service delivery and investment. That leads to a current incongruence between the investment needs of the municipality and the transfers that the municipality receives.

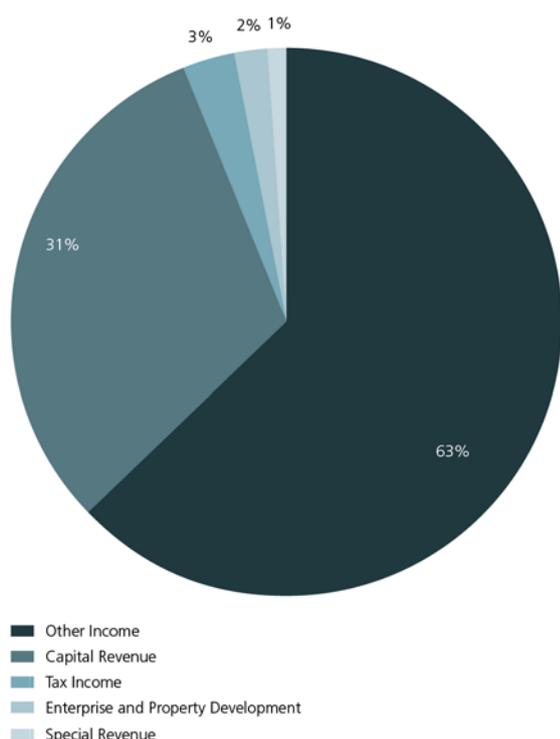


Fig. 15. Ankara Metropolitan Municipality Revenues

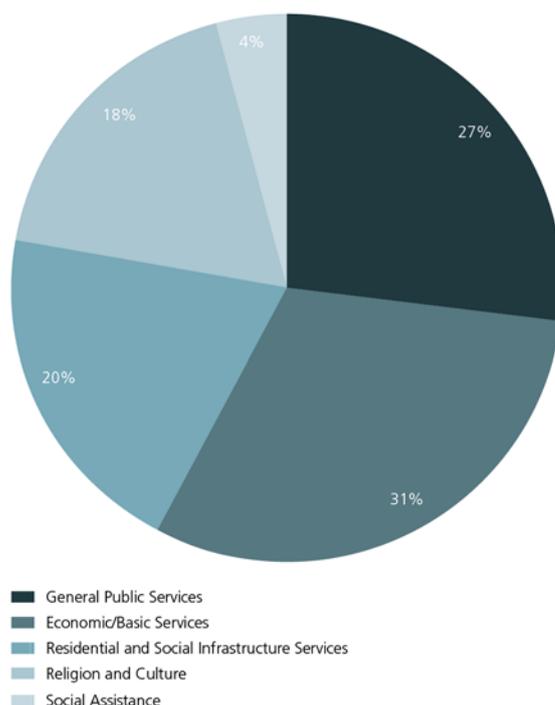


Fig. 16. Ankara Metropolitan Municipality Expenditures

FINANCING MECHANISMS

The Metropolitan Municipality of Ankara is allowed to borrow domestically and internationally but it has to comply with legal restrictions on borrowing both nationally and internationally¹¹. Permission from the Central Government (through the Ministry of Finance) is required for all foreign borrowings regardless of whether they require sovereign guarantees. On the local borrowing front the metropolitan municipality is allowed to borrow domestically for up to 10% of the 're-valorated value' of the preceding annual budget revenues. The local commercial bank is a main focal point for debt financing and there are some recent projects that have been financed in Ankara especially related to roads and transportation.

Nevertheless, as debt needs to be backed by a revenue stream, this still means that the city will have to enhance revenues in order to finance the intervention beyond the Global Future Cities Programme. While Ankara has the ability to raise fees and taxes, expenditures are still dependent on national transfers. This creates an opportunity for the city for expanding revenue streams to finance the interventions.

Urban Mobility

Given that the strategy touches on a number of different aspects, there is scope to getting the private sector involved at the implementation stage, in the form of different public-private partnerships (PPPs). Each of these PPPs will, however, need to be structured to suit the context in which it is being used. For example, the PPP system for a park-and-ride system will be different from that of an overall traffic management system.

Around the world, including Mexico City, Barcelona and Paris, there have been several bike-sharing systems that have attracted innovative financing models in other cities by bundling the set-up and operation of the system together with advertising revenues. Cities can give contracts to firms to set up and run the bike system in exchange for prime advertising space across the city or in the bike stations.

Turkey has extensive experience with Public Private Partnerships (PPPs) especially in the energy and transport sectors. The Economist ranked Turkey in the top five in terms of PPP operational maturity within its regional context¹³. There is a national legal framework regulating PPPs in the country that includes procurement laws¹⁴ and laws on privatization practices¹⁵. However, there are a few weaknesses in the PPP system, particularly regarding its implementation at municipal level. This includes a lack of a specialised PPP unit¹⁶ to provide guidance and capacity in sub-national PPP implementation. Additionally, although there are some

experiences on implementing PPPs in Ankara, PPPs in Turkey are rarely implemented at subnational level due to a lack of technical capacity¹⁷.

On the other hand, cities can also use advertising systems to raise revenues themselves, given that advertisement fees are part of the fiscal competencies of both metropolitan and district municipalities. In fact, advertisement fees of the main roads are collected by metropolitan municipalities, and the fees on the secondary and tertiary roads are collected by the districts.

It is important to note that there are potential challenges associated with the use of PPP for traffic management systems. The city needs to ensure that the system and technologies that are recommended are indeed to the cities advantage and not vested interests of private sector. Additionally, as PPPs do not relieve the investment needs from the city side, the city needs to ensure that there is a clear funding stream linked to pay back up-front capital as well as to run the system.

Currently there are no on-road parking fees in Ankara. This creates an incentive for further use of a private mode of transport and leaves an untapped area of revenue to fund collective mobility. However, municipalities in Turkey are responsible for building parking areas and can raise fees in this regard¹⁹. In fact, metropolitan and district municipalities share the fee collection capacity of parking by 50%.²⁰. Therefore, user fees could be implemented in order to support a park-and-ride system that can provide additional funding stream. However, the importance of this financing mechanisms would depend on how large the revenues are as well as on the costs of operation and maintenance of parking space.

Urban Regeneration

The plans for the city to revitalise the urban centre as well as more specific neighbourhood-scale urban regeneration in Çankaya District, will increase land values in these two areas. Therefore, having land value capture instruments in place will be key. Municipalities in Turkey are able to raise property tax, which is the primary municipal tax, providing overall around 50% of municipalities' tax revenue²¹. This is a strong indication for the implementation of land-based finance.

Acquiring additional land needed for regeneration would be an important consideration, especially considering as the regeneration area of Çankaya District is already built. Turkey already has a history of using area-based land readjustment models and has the legal instruments to facilitate contributions from private land owners to the public use²². In the case of Turkey there is a limit of 40% to land owner's contribution.

Legal Analysis

This legal analysis uses Ankara's governance structures, policies and legal frameworks to understand the capacity for the proposed transportation and public space improvements.

TRANSPORT GOVERNANCE STRUCTURE

National level

Ankara has a mature and established city governance structure, which is decentralized from the national level to the regional level and then to the district municipalities. In Ankara central government has a stronger role in some dimensions of transport and urban planning, particularly because it is the capital city, and the Çankaya district municipality hosts the national ministries. As such, the Programme's interventions must be aligned with the national agendas.

The Ministry of Environment and Urbanisation (Directorate General of Physical Planning) issues regulation defining municipalities' mandate, and holds rights to plan preparation at the regional, provincial, and district level.

The Ministry of Transport and Infrastructure is involved in Ankara city as the main investor and implementer of transport infrastructure, including highways, high speed rails and the Ankara Metropolitan Municipality's Metro.

Moreover, the Ministry of Environment and Urbanisation and the Ministry of Culture and Tourism also govern public space (protected heritage areas fall under the control of the Ministry of Culture and Tourism). TOKI, the national housing agency, has planning rights over public housing areas even if it contradicts with the planning of municipality.

Regional level

Turkish Law No. 5216 provides a legal mandate to the Ankara Metropolitan Municipality (Büyükşehir Belediyesi, or AMM) over municipal issues, including giving it a clear authority over transport planning and management. AMM developed the first Ankara Transport Master Plan in 1990 with a focus on a rapid transit system, which opened in 1996. The municipality is currently drafting an updated master plan on transport to shape mobility goals over the coming decades. AMM's Transportation Department mainly deals with planning and transport regulations.

Meanwhile, EGO is an AMM-operated corporation, which manages the bus and rail system. The bus system is the main public transport system. While most buses are owned by EGO, there are many privately-operated ones which run on the same routes as the public buses and, through their union, they negotiate license fees and prices with EGO. Large transport investments often involve the national Ministry of Transport in investment and construction; the Ministry also receives a percentage of revenue.

Since the 2017 Turkish constitutional reforms, the country has been going through governance restructuring. It remains unclear whether the governance structure of municipalities will be changed.

District level

Finally, while the District Municipalities do not have mandates over transport planning and infrastructure, they are key players in the maintenance of streets and public space within their jurisdiction as well as in the mobility and transport planning in the local level. Their planning and service provision must comply with AMM.

Çankaya and Altında District Municipalities together cover the Ankara city centre, including the historical area. Çankaya Municipality is Ankara's central municipality and known to be a progressive one, as they have already developed projects such as rain harvesting, the European Cycling Challenge and symbiocity and have signed the Covenant of Mayors.

In recent years Altında municipality has achieved important historical city centre renewal projects. In the old city within Altında, buildings are protected by national heritage regulations, which can limit the ability of developers and the government to expanding buildings, roads or pavements to accommodate more people and improve non-motorised or mass public transport.²³

Institutional coordination

The mayors of the districts are members of the metropolitan council and thus provide a built-in mechanism for coordination between districts and the metropolitan municipality. However, there are clear gaps in decision-making in Ankara, reflecting a lack of integrated planning between departments, agencies and government bodies. The two-tiered urban governance structure, as well as frequent intervention by the central government, without vertical coordination, has been cited as the cause of these discrepancies in development outcomes. This is exemplified by frequent divergence from strategic urban plans in terms of areas permitted for development or infrastructure projects.

URBAN PLANNING HIERARCHY

Ankara, like other metropolitan municipalities in Turkey, is subject to a planning hierarchy with three main plans: the Environmental Order Plan, the Master Development Plan and the Implementation Development Plan. Legally they need to be consistent, as the lower-level plans have to follow the higher order one.

The **Environmental Order Plan** is the strategic spatial development plan in the metropolitan scale. Normally, across Turkey, this is the legal responsibility of the Ministry of Environment and Urbanism but in Ankara it is delegated to the AMM. This plan covers 'strategic' land use - for example it pinpoints new areas to be developed and for what purpose. The current Environmental Order Plan for Ankara was ratified in 2018 and covers the period until 2038.

The second order plan is the **Master Development Plan**, which is a district-scale land use plan. This is developed by the AMM and is a zoning plan for the urban area.

The third order plan is the **Implementation Development Plan** and this consists of sub-district scale application plans and is developed by the local district municipalities. This includes precise development measurements (i.e. land use and functions, heights, floor-area-ratios, densities) and guides issuing of building permits. The 25 district municipalities draft these plans. Urban planning at district level needs to be approved by the metropolitan municipality. Due to lack of capacity from local governments, however, there is often limited implementation of these plans in practice.

ALIGNMENT TO ANKARA'S URBAN PLANS

Environmental Order Plan

The leading environmental problems in Ankara have been named as air pollution, lack of green areas and the overuse of fuels in transport.²⁴ The Ankara Environmental Order Plan (2018-2038) calls for Solutions for Global Warming and Air Pollution (p. 147), including the reduction of greenhouse gas emissions from transportation with improved public and active transportation means. According to the Plan, air pollution should be tackled in coordination with the district municipalities. Therefore, the Programme's aim to improve public and active transportation contributes directly to the city's agenda.

ÇANKAYA HEALTHY CITIES PROJECT

The Çankaya District Municipality has adopted a basic principle of "health for all" and has embraced a 'Healthy City' policy, in partnership with the World Health Organization. Çankaya is also founding member of the "Turkish Healthy Cities Association." The Çankaya Healthy City Project Office has advanced programs related to social and health services, assistance for elderly people and people with disabilities, a municipal wellness centre and promotes an active lifestyle, and sports infrastructure in the local parks. Moreover, having signed the European Municipalities and Regions Council's European Charter for Equality of Men and Women in Local Life, the Çankaya Municipality prepared a 'Local Equality Action Plan.' These municipal policies clearly align with the activation of shared public spaces, transportation accessibility, and climate friendly urban actions.

INTERNATIONAL ALIGNMENT AND TECHNICAL RECOMMENDATIONS

Potential Impact

The potential impact analysis outlines the main benefits that can be potentially attained through the Global Future Cities Programme in each city, under the assumption of three moments: short, medium and long term. Nevertheless, as impact can arise from a complex interaction of context-specific factors, rather than as result of a single action, an empiric impact assessment is out of the scope of this report.

The short term refers to the outcomes that can be achieved through the implementation of the technical assistance support within the 2-3 years' scope of the Global Future Cities Program. Mid-term outcomes are only achievable after the intervention's execution at the city level, either through capital investments or the legal validation of key polices and plans. Long-term impact of the interventions is linked to the sustainability of the interventions in a 7-15 year timeframe and is related to the project cycle phase of operation and maintenance.

SHORT-TERM OUTCOME

The Programme in Ankara can positively impact the municipal technical and managerial capacity whilst increasing citizens' inclusion in decision-making processes. Both interventions will include capacity-building components for more sustainable and resilient urban planning and design, especially related to non-motorized transport implementation and the adaptation of streets and open public spaces towards greener areas.

Additionally, the Baseline Studies that include disaggregated data collection, the Methodology Document for prioritisation of pilot areas and the Goals' impact Assessment will increase municipal capacity for evaluating impact of urban plans and decision making based on informed demographic, economic, cultural, environmental and other holistic projections.

The interventions will include participatory processes during the whole implementation phase that will prioritize the gender equality and youth representation during the consultation and validation processes.

Finally, as the two main stakeholders, the Ankara Metropolitan Municipality and the Çankaya District Municipality, belong to different tiers of government the Programme will constitute an opportunity for improving integrated governance and multi-level coordination.

MEDIUM-TERM OUTCOME

One of the main objectives that both interventions will contribute to achieving in the mid-term is to increase mobility and accessibility through the promotion of public and non-motorised transport systems and the removal of physical barriers in the public space. Cleaner air and more quantity of green areas will be also part of the expected outcomes in the mid-term.

Once the Pilot Projects of both interventions have been implemented and the Multimodal Mobility and Public Space standards and frameworks developed, the city will potentially increase its public space quality, urban security and accessibility, especially for women and disadvantaged groups.

The implementation of multimodal transport and bicycle systems can increase ability to access employment and services, particularly for youth and the lower-income population, while it can reduce traffic congestion and goods' transportation costs. The improvements on Çankaya neighbourhood's street layout will also impact the accessibility of people with disabilities and women and contribute to increased safety of streets and better quality of open public space.

Contribution to Sustainable Urban Development

LONG-TERM POTENTIAL IMPACT

Upgrading of streets in Çankaya's neighbourhoods has a potential impact for increasing urban quality and economic growth in the long-term perspective. More accessible and vibrant streets are a catalyst of job opportunities creation and poverty reduction. Furthermore, the development of greener public spaces, non-motorized transport alternatives and higher accessibility to urban services will impact positively on citizens' life quality and the reduction of air pollution.

Finally, better-qualified civil servants in Ankara will potentially plan and manage more inclusive urban spaces, increase efficiency on public transport and will have tools for better addressing the impacts of climate change. The Dissemination Strategy for Çankaya municipality will promote the replication of the intervention in other districts of Ankara and Turkey.

2030 SUSTAINABLE DEVELOPMENT GOALS

INCLUSIVE AND SUSTAINABLE CITIES



The interventions in Ankara can broadly impact on SDG 11 as they contribute to providing safe, affordable, accessible and sustainable transport systems and public spaces for all; particularly women and children, older persons and persons with disabilities, by expanding public transport and pedestrian areas and improving public space in the city centre.

RESILIENT INFRASTRUCTURE



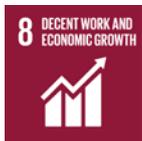
The implementation of bicycle transport systems and improvements in the open public space is aligned with SDGs 9, 13, and 15, as it contributes to the development of more sustainable and resilient infrastructure and ecosystem conservation, whilst embracing the integration of climate change measures in public policies and strategies.

IMPROVE SECURITY IN PUBLIC SPACE



Furthermore, the future transformation of public space can lead to the reduction in road accidents and improved security in the public space, which contributes the implementation of the SDGs 3, 11, and 16, especially by increasing the number of people in the streets, providing better urban furniture such as night illumination and improving motorised traffic management.

INCLUSIVE ECONOMIC GROWTH



The defined interventions are also aligned with the SDG 8, and can impact the promotion of development-oriented policies in Çankaya District and Ankara Metropolitan Municipality to support innovation and enhance decent work for all women and men, including for young people. Additionally, they can embrace issues of inclusive economic growth and promote innovative financing models related to bike-sharing systems, as well as the promotion of commercial uses associated to the revitalisation of the public space.

PARTICIPATORY DECISION MAKING-PROCESS



The Programme's implementation methodology directly contributes to ensuring responsive, inclusive, participatory and representative decision-making at all levels (SDGs 5, 10, 16), as well as to enhance capacity for participatory, integrated and sustainable human settlement planning and management (SDG 11).

STRENGTHENING DOMESTIC RESOURCE MOBILISATION



Moreover, it has a direct effect on strengthening domestic resource mobilisation, including international support to developing countries, and improving domestic capacity for tax and other revenue collection (SDG 17).

ENHANCE POLICY AND REGULATORY COHERENCE



Finally, the Programme's interventions aim to enhance policy and regulatory coherence for sustainable development (SDG 17) as well as to support Turkey's political sphere and leadership to establish and implement policies for poverty eradication and sustainable development (SDG 1).

NEW URBAN AGENDA ALIGNMENT

At the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in Quito, Ecuador 2016, the New Urban Agenda (NUA) was adopted. This Agenda details how cities should be planned and managed to achieve sustainable urbanization. The New Urban Agenda encourages UN-Habitat, Member states, local authorities, and others to collaboratively generate **evidence-based** and **practical** guidance for implementing the urban dimension of the SDGs.

UN-Habitat's draft Action Framework for Implementation of the New Urban Agenda (AFINUA) is organized under five categories: (1) national urban policies; (2) urban legislation, rules and regulations; (3) urban planning and design; (4) urban economy and municipal finance; and (5) local implementation.

The GFC Programme intervention/s align to the AFINUA in the following ways:

Both interventions for Ankara will be set up under a planning and design process that is evidence-based and participatory (AFINUA key item 3.1) and will contribute to establishing and supporting community-led groups that bridge the citizens and government (AFINUA key item 5.6).

Street transformation in Ankara should ensure that the designs and definition of streets are adequate and in sufficient quantity (AFINUA key item 3.3). This ensures access to quality urban space, infrastructure and services for Ankara's citizens (AFINUA key item 4.5).

Coordination and cooperation between different institutions and levels of government during the Global Future Cities Programme in Ankara promotes two AFINUA key items: the alignment between national and sectoral development plans and policies at all territorial levels (AFINUA key item 1.4), and jurisdictional coordination and coherence (AFINUA key item 1.6).

Both interventions will promote the creation of liveable spaces, walkability and a sense of place (AFINUA key item 3.5) and contribute to the definition, acquisition and protection of public space (AFINUA key item 2.3). The bicycle network in Ankara can contribute to the promotion of economic agglomerations due on better accessibility and proximity of services, which also lowers the time, costs, and environmental impact of travel (AFINUA key item 3.4).

ALIGNMENT WITH CROSS-CUTTING ISSUES AND THE PROSPERITY FUND

The Global Future Cities Programme seeks to achieve higher rates of sustainable and inclusive growth while increasing long-term investments in sustainable urban projects. Urban and mobility plans, strategies and policies provide greater awareness, capability and confidence, while establish regulatory frameworks resulting in higher incentives for partnerships and financial mechanisms.

The neighborhood-scale Public Space Design Plans and the Bicycle Strategy and Master Plan for Ankara are important tools for a better urban management and development of the city, and they will contribute as reform drivers for more efficient urban planning, transparent policy making processes and more resilient and inclusive cities.

The four Cross-Cutting Issues of UN-Habitat, as identified in the Strategic Plan 2014-2019, are mainstreamed to ensure that all UN-Habitat work targets those with the most need and promotes socially and environmentally sustainable cities²⁵. In this regard, the interventions detailed for Ankara are shaped under the mainstreaming of environmental safeguards, youth, gender equality and Human Rights.

Potential Benefit	Short term	Medium Term	SDG Alignment		New Urban Agenda	Programme Objectives and Cross-cutting issues
			GOALS	TARGETS	AFINUA KEY ITEM	1. Climate change; 2. Gender equality; 3. Human Rights; 4. Youth; 5. Sustainable and inclusive economic growth
Increased citizen participation in developing municipal plans and decision making processes.			11, 16	11.3, 16.7	3.1, 5.6	Gender equality; Human Rights; Youth
Better Governance & Integrated Management of cities including better coordination and cooperation between different levels of government.			17	17.14, 17.15	1.4, 1.6	Climate change; Human Rights; Sustainable and inclusive economic growth
Better Planning for & Managing the impacts of climate change			1, 11, 13, 15	1.5, 11.b, 13.2, 15.1	2.3	Climate change
Integrated gender equality approach in policies, strategies and plans.			5	5.c	3.1, 5.6	Gender equality
Increased capacity to prioritize strategies and improved tools for decision making based on informed demographic, economic, cultural, environmental and other holistic projections.			11, 17	11.a, 17.18	3.1	Climate change; Gender equality; Human Rights; Youth; Sustainable and inclusive economic growth
Increased local capacity for evaluating and monitoring the impact of urban plans, policies, and strategies.			17	17.16, 17.18	3.1	Climate change; Gender equality; Human Rights; Youth
Increased mobility and accessibility for poor women and men and other marginalised groups.			9, 11	9.1, 11.2	3.3, 3.4	Gender equality; Human Rights; Youth
Increased ability to access employment and services, particularly for women and lower income groups			8	8.3	3.3, 3.4	Gender equality; Human Rights; Youth; Sustainable and inclusive economic growth
Increased efficiency of the transportation system			9, 12	9.1	3.3, 3.4, 4.5	Climate change; Sustainable and inclusive economic growth
Reduction in traffic congestion and in air pollutant emissions			13	13.2	3.4, 3.5	Climate change
More secure, safe, and accessible public transport, particularly for women and elder.			3, 11	3.6, 11.7	3.3, 3.4	Gender equality; Human Rights; Youth
Increased access to safe, inclusive and accessible, and green public spaces, in particular for women and children, older persons and persons with disabilities.			10, 11, 15, 16	10.3, 11.7, 15.1, 16.1	2.3, 3.5	Gender equality; Human Rights; Youth
Increased creation of job opportunities, particularly for women, youth, and disadvantaged groups.			1, 5, 8	1.1, 1.2, 8.5, 8.6	3.4	Gender equality; Human Rights; Youth; Sustainable and inclusive economic growth
Increased quality of life, including the promotion of economic equality and poverty reduction.			1	1.1, 1.2	3.5, 4.5	Gender equality; Human Rights; Youth; Sustainable and inclusive economic growth

Fig. 17. Potential Impact and Programme Objectives Alignment

Success Factors

The following statements are considered as evidenced success factors, based on international best practices, for the interventions in Ankara, in order to achieve maximum impact in line with the SDGS, the prosperity fund, and the cross-cutting issues. Success factors are divided into spatial, financial and legal and aim to address potential barriers for the long-term sustainability of the interventions.

SPATIAL CONSIDERATIONS

Non-Motorized Transport (NMT)

Including bicycle networks improves urban mobility and accessibility, especially for lower-income groups, because cars are the most expensive mode of transport. Active transport networks have particular benefits for female users of public transport. Additional benefits of encouraging NMT are that it can improve greening in the city and, depending on the density of such services, it can further help reduce congestion.

Integration Along all Modes and Routes of the Transport Network

Integrating all transport modes and routes, including all physical and operational elements, such as ticketing and fares, leads to optimal efficiency and cost-effectiveness. This is particularly important as most passengers often use more than one mode of transport en route, so integration minimises their overall travel time and cost. Aspects to consider for coordination include individual routes, stop locations, amounts and frequency of nodes and schedules.

Prioritisation of Pedestrians and Human-scale Designs

The transformation of streets in Ankara neighbourhoods can improve the quality of the public space and promote economic vibrancy through the prioritization of pedestrian and human-scale designs.

For example, Melbourne, Australia's strategy to revitalize its city centre demonstrated that improving sidewalks on the main commercial streets, as well as converting some streets into permanent or part-time pedestrian zones and adding new plazas, trees and urban furniture, resulted in a huge upsurge in street life. In ten years, pedestrian volume on the main street jumped by 50 per cent and surpassed that of London's busiest commercial street, Regent Street.

City-wide Provision of Public Space

The intervention for improving public space in Çankaya streets should consider not only the neighbourhood scale but also a city-wide public space strategy that combines different types and scales of open spaces and public spaces for all, including streets, plazas, sidewalks, and bike lanes.

This includes the adequate provision of public space in the city following international benchmarks. At the same time, this can enhance accessibility as well as non-motorised connectivity in the city.

Short-, Medium- and Long-term Implementation and Activation Strategies

Strategies and measurements for revitalizing the use of public space that connect with cultural and leisure activities should be considered in Ankara for the long-term sustainability and the promotion of local economies.

In San Isidro Lima's neighbourhood, Peru, the activation of public spaces through short- medium- and long-term strategies such as daily cultural events, implementation of urban furniture and integrated urban transformation has reconnected people with the public space and improved the quality of life.

Strategies for Inclusive, Accessible, and Resilient Public Spaces

Public space design should promote different uses to include people with different socio-economic backgrounds, women, people with disabilities, elderly,

youth and indigenous people. Moreover, strategies for increased resiliency can be enhanced through the upgrading of public spaces. This may involve smart design solutions to adapt and mitigate overheating in Ankara.

FINANCIAL CONSIDERATIONS

Increased Revenue Generation

Bicycle networks can have a positive socio-economic impact in the area of healthcare by saving significant healthcare costs, including treatment expenses. The Danish capital of Copenhagen's optimised bicycle connectivity has also lowered tax expenditures as a result of fewer illnesses.

Moreover, establishing municipal mechanisms for capturing the increased land values triggered by the revitalisation of the public space enables cities to recoup investments in transport. Land value capture instruments include aspects such as development fees charged to nearby landowners to fund the infrastructure or tax increment financing to enable property taxes to recoup revenues from increasing property values. Enabling legal and financial conditions need to be in place to implement such mechanisms for further investments in public space provision and maintenance.

Alternatives for Financing the Maintenance of Public Space

Community agreements can be a feasible alternative for financing the maintenance and management of public space. The city of Monterrey, Mexico, allows owners of buildings or plots located in the city centre to obtain the use of the public space in front of their property for recreational purposes in exchange for their maintenance and a fee. Another successful example of that is how Bogotá also issues voluntary agreements through which community organisations can receive from the city the use of public spaces with the commitment to maintain and manage them with the revenues generated with their productive use.

Public and Private Partnerships

Involving businesses of a different nature in non-profit public space development and management through Public-Private Partnerships can allow to establish sustainable financing mechanisms. There are several examples of private companies interested, for example, in becoming patrons of a playground, a park or a street and several cities have in place incentives to stimulate the involvement of the private sector in the development and management of public spaces.



Fig. 18. Ankara City View (Source: Sara Thabit, UN-Habitat)

Financial incentives to Diminish Congestion

Financial incentives can diminish congestion in the city centre and improve municipal revenues. In 2003 London introduced the Congestion Charge fee for motor vehicles operating within the Congestion Charge Zone (CCZ). According to Transport for London (TfL) figures, traffic levels since 2003 have gone down by 10.2 per cent and, in the 2012/2013 biennium, TfL collected GBP 132.1 million (USD 1.68m) of net revenue from the Congestion Charge.

Cost-effective Transport Services Through Transit-Oriented Development (TOD)

Transport services are more cost-effective if a given transport node services a large amount of people, which can be facilitated by transit-oriented development. Plans for mixed-use urban development around public transport development and facilitating a mixture of residences and services within walking distance will lower the need for private motorized transport. This, in turn, reduces congestion and helps with overall greening efforts. TOD can improve the financial viability of the whole system.

Use Transport for Economic Efficiency

Public transport is an economic system, that if well integrated, can provide large efficiency gains and other benefits than if each system operates individually. Improvements in connectivity in a city is one of the main ways that urbanisation can support economic growth in the long run. Firms can be connected to their labour, markets and other firms for input and people can be connected to their residences. The more seamless the connectivity is, the higher productivity will be.

LEGAL CONSIDERATIONS

Inter-governmental Coordination

Coordination and knowledge transfer between different governmental entities and key stakeholders during the design phase can increase the future sustainability of the intervention and enhance the appropriateness of future users.

The interventions of the Global Future Cities Programme for Ankara constitute an opportunity for improving the coordination between the Metropolitan and the District Municipality while increasing the participation of citizens in decision making processes.

Coordinate Transport Policy with Land-use Policy

Together land-use and transport determine 'accessibility', the ability to access jobs, shops and services. Intensive land-use facilitates high population density which, in turn, makes transport systems more cost-effective and better utilized. Land-use policies to increase density by ensuring that land administration and planning laws allow high-density development are therefore a necessary complement to transport policy.

Institutional Agreements for Well-Coordinated Public Space Management

Coordination and knowledge transfer between different governmental entities and key stakeholders will increase the sustainability of the public space and enhance its appropriateness for users. Developing institutional mechanisms for public space maintenance helps for better municipal coordination. The experience of Johannesburg, South Africa shows the success of creating a unified public space agency for the institutional coordination in the management of public spaces. When more authorities are involved, planning and managing becomes more complex. Setting up or streamlining institutional arrangements can also improve overall coordination and management between different levels of government.

Urban Design Regulations

Architectural and urban design regulations should require a mix of functions and activities in order to ensure a lively street and urban environment. The intervention for improving public space in Çankaya streets should use strategic regulations for ensuring the progressive transformation of both urban space and building facades. In this regard, it is recommended to use development control regulations such as urban design standards or building codes to ensure that ground-floor facades appeal to pedestrians and contribute good lighting and levels of interest and activity.

Mixed-use Regulatory Frameworks

The promotion of economic uses and local commerce on the ground-floor level is a strategy for promoting a vibrant city and local economy development. UN-Habitat promotes regulatory frameworks that establish mixed-use land use zoning including residency, commerce and public services and facilities. UN-Habitat recommends that at least 40 per cent of floor space is allocated to economic use in any neighbourhood²⁶.

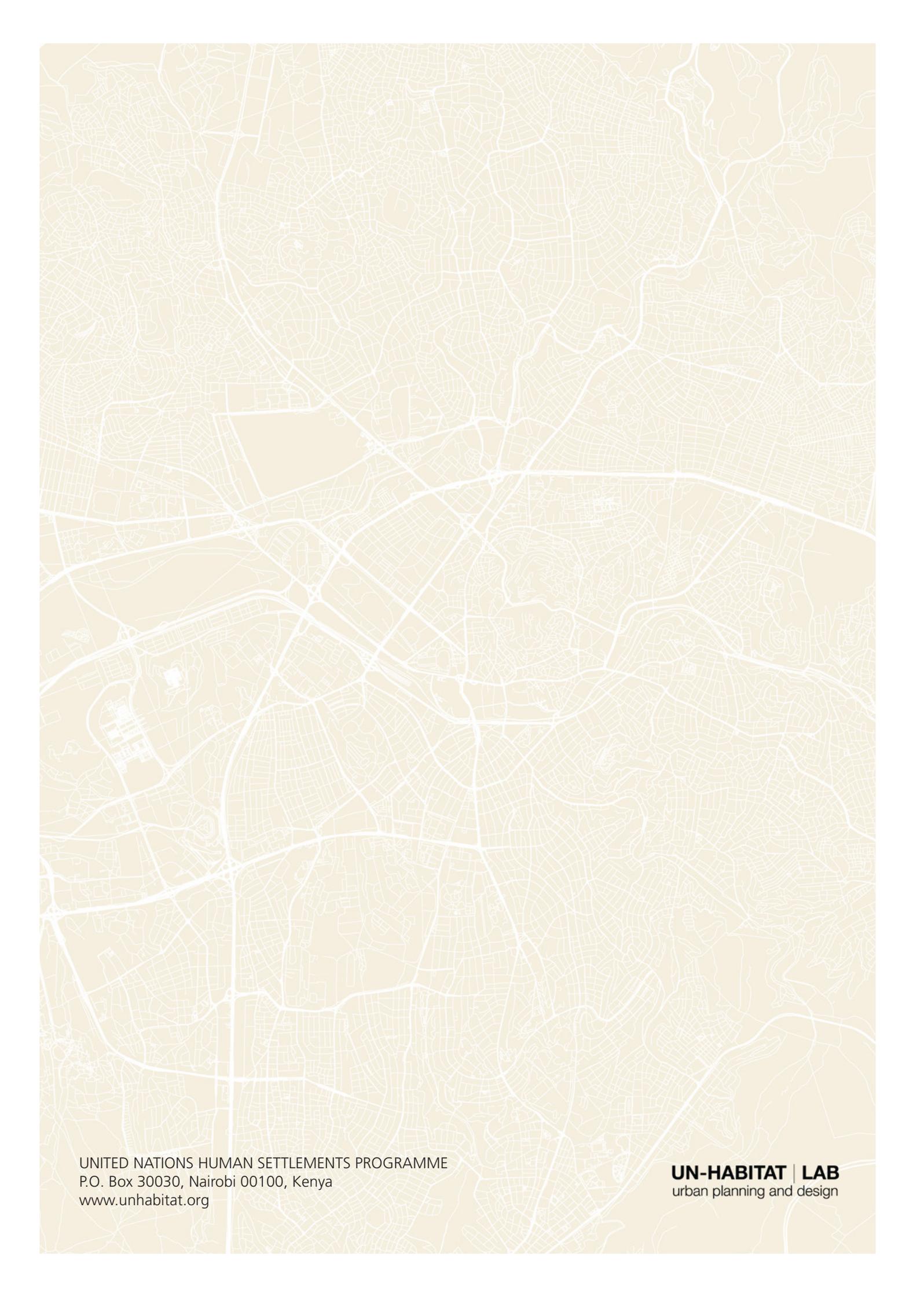
The revision of regulatory frameworks of Çankaya neighbourhoods can contribute to the successful urban revitalization and future sustainability of public space.

Parking Regulations

Regulating parking in the city centre can contribute to diminishing the level of congestion and improve municipal revenues. Parking regulations can constrain parking supply in public transit-rich locations like the CBD by reducing the amount of spaces, implementing parking maximums for buildings in the core areas, or urging parking prices to reflect the land prices of each vicinity.²⁷

ENDNOTES

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