

PUBLIC SPACE PROFILE SKOPJE Research report

Piloting the methodology for measuring the

Sustainable Development Goal 11.7.1. Indicator: "Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities"





1. PUBLIC SPACE PROFILE Skopje

2. Sampling area: Municipality of Centar

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1. INTRODUCTION

"What defines the character of a city is its public space, not its private space. What defines the value of the private assets of the space are not the assets by themselves but the common assets. The value of the public good affects the value of the private good. We need to show every day that public spaces are an asset to a city."

UN-HABITAT Executive Director, Joan Clos i Matheu¹

This Public Space Profile of the City of Skopje provides a brief overview of current practices in the development and management of public space in Skopje and a profile of the availability and quality of public space. The report addresses numerous institutional, technical and human dimensions of public spaces in Skopje, including:

- a definition of 'urban public space' in the context of SDG 11.7;
- a brief overview of international and national legislation and policies relevant to public space;
- a definition of relevant quantitative and qualitative indicators in relation to public space and SDG 11.7;
- a baseline analysis of public space availability and quality in the city of Skopje, analysed according to selected parameters regarding built-up areas, including open space for public use by all, by sex, age and persons with disabilities, and with a focus on green areas.

This report was pioneering in its methodology, for the first time measuring quantitative and qualitative parameters of public spaces in Skopje as defined by SDG 11 and Target 11.7.

The research methodology was applied to two samples within the Municipality of Centar, as the most central locations in the capital. A key objective of this pilot project was to ascertain the feasibility and aptitude of applying this research methodology, providing lessons for refining future analyses of public spaces across the whole of Skopje and other towns throughout Macedonia, as well as its possible scaling-up to application in other countries.

The methodology applied in the research for this report was developed by UN Habitat for measuring the important indicator 11.7.1. This report is unique in presenting the outcomes of systematically piloting this methodology and we hope that its findings will be of value to public space development worldwide.

The research was commissioned by UNDP's Country Office as part of a wider cross-regional project entitled *Measuring the Unmeasured/Venturing Into the Unknown: How Can We Measure SDG Tier III Indicators?* This project aims to make use of new and alternative sources of data and technologies to support national partners' efforts to measure the progress of their sustainable development agendas, specifically in relation to Tier III indicators. Effective measurement of these parameters will contribute towards a culture of evidence-based decision-making, informed policies and programmes, and strengthened state-society relations in a growing number of countries in the two regions.

The research includes publicly available data, cadastre data, GIS-tools and field research.

The findings from the research inform a set of recommendations that will provide a solid basis for future discussions on informing and improving urban policies for the development and management of public space.

¹ PLACEMAKING AND THE FUTURE OF CITIES (http://www.urbangateway.org/publicspace/document/place-making-and-future-cities-0)

1.1. Definition of urban open public space (in the context of SDG 11.7)

Public space is an essential issue in the development and planning of cities. Assessments of the value of urban public space are most commonly derived from people's experiences of the quality of these spaces. Recent decades have witnessed intensive construction leading to the loss of significant public places in both quantitative and qualitative terms. This depletion of public space is happening, moreover, at a time when 55% of the world's population now live in cities,² leading to a growing need for public spaces to provide areas for the exchange of goods, experiences and communications, as well as adequate public and green spaces to provide for healthier living conditions and healthy social activities.

To address the issue of public space at international level, the UN adopted SDG 11 at the Nations Sustainable Development Summit in 2015.³ SDG 11 is a commitment to 'Make cities and human settlements inclusive, safe, resilient and sustainable' and includes the provision of public space as an essential component in creating sustainable cities. Target 11.7 commits to the provision of "universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities" by the year 2030.

A general and global definition of public space is given in the preparatory materials of the UN Conference on Housing and Sustainable Urban Development – Habitat III,⁴ in which public space is defined as follows:

"Public spaces are all places publicly owned or of public use, accessible and enjoyable by all for free and without profit motive. This includes streets, open spaces and public facilities.

This definition is further developed in UN Habitat's GLOBAL PUBLIC SPACE TOOLKIT,⁵ which states that "Public spaces are all places publicly owned or of public use, accessible and enjoyable by all for free and without a profit motive", with the following elaboration:

"The essence of public space as a common good implies its accessibility to all with no direct cost to the user, and its spirit of "public service" without any purpose other than contributing to the overall quality of urban life. The term "place" is used to allude to the inherent quality all good public spaces should possess, and also because some veritable public spaces, like public libraries, cannot be properly defined as "spaces". Both publicly and privately owned public spaces are contemplated, although public ownership often guarantees more stable access and enjoyment over time. The absence of a profit motive is an integral part of the definition because many privately operated open spaces and facilities are subject to restrictions not governed by the community and are created, rather than for the benefit of all city users, to attract consumers."

In 2016 the Third Conference of the United Nations on Human Settlement produced a CHARTER OF PUBLIC SPACE⁶ that includes the following extensive definition of public space:

"I. Definition of Public Space

- 6. Public spaces are all places publicly owned or of public use, accessible and enjoyable by all for free and without a profit motive. Each public space has its own spatial, historic, environmental, social and economic features.
- 7. Public spaces are a key element of individual and social well-being, the places of a community's collective life, expressions of the diversity of their common natural and

² 2018 Revision of World Urbanization Prospects (UN DESA). Accessed 20.06.2018 https://www.un.org/development/desa/publications/2018-revision-of-world-urbanization-prospects.html

³ A/RES/70/1 – Transforming our world: the 2030 Agenda for Sustainable Development. Accessed 01.05.2018: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

⁴ United Nations Conference on Housing and Sustainable Urban Development - Habitat III, *Issue Paper 11: Public Space 29th May 201.* Accessed 01.05.2018: http://docplayer.net/25037968-Habitat-iii-issue-papers.html

⁵ GLOBAL PUBLIC SPACE TOOLKIT. Accessed 01.05.2018: https://unhabitat.org/wp-content/uploads/2015/10/Global%20Public%20Space%20Tool-kit.pdf; http://www.urbangateway.org/publicspace/document/global-public-space-toolkit; http://www.urbangateway.org/publicspace/what-public-space)

CHAPTER OF PUBLIC SPACE. Accessed 01.05.2018: (http://www.inu.it/wp-content/uploads/Inglese_CHARTER_OF_PUBLIC_SPACE.pdf)

cultural richness and a foundation of their identity, as expressed by the European Landscape Convention. The community recognizes itself in its public places and pursues the improvement of their spatial quality.

- 8. Public spaces consist of open environments (e.g. streets, sidewalks, squares, gardens, parks) and sheltered spaces created without a profit motive and for everyone's enjoyment (e.g. public libraries, museums). When they possess a clear identity, they can both be defined as "places". The objective is that all public spaces should become "places".
- 9. Views differ on whether public spaces should or should not be publicly owned. However, all public spaces that are also publicly owned offer more stable guarantees of access and enjoyment over time, because they are less subject to those legitimate changes of use typical of private ownership.
- 10. Public spaces, whenever safeguards of natural or historical value allow, must be made accessible without barriers to the motorial, sensorial and intellectively handicapped.
- 11. Analogously, all areas even if publicly owned or unfenced, which by their characteristics are substantially unusable by the public inaccessible slopes, abandoned areas, or cutouts, cannot be considered a public space and cannot be counted as a service or public infrastructure.
- 12. Conversely, public spaces which are not yet accessible and/or usable must be considered as "potential public spaces", and therefore as a precious resource for the strengthening and renovation of the existing system of public space, and thus of urban quality as a whole."

1.2. International legislation and policies

Current international legislation on public spaces follows UN Resolution A/71/L.23, adopted by the UN General Assembly on 21 November 2016 as a basis for the preparation of national strategies, policy papers and laws on the provision and maintenance of public space in urban areas. It endorses the New Urban Agenda adopted by the UN Conference on Housing and Sustainable Urban Development (Habitat III), which declares that public space has an important role in the realization of the globally shared vision of sustainable urban development.

"Our shared vision

- 11. We share a vision of cities for all, referring to the equal use and enjoyment of cities and human settlements, seeking to promote inclusivity and ensure that all inhabitants, of present and future generations, without discrimination of any kind, are able to inhabit and produce just, safe, healthy, accessible, affordable, resilient and sustainable cities and human settlements to foster prosperity and quality of life for all. We note the efforts of some national and local governments to enshrine this vision, referred to as "right to the city", in their legislation, political declarations and charters.
- 12. We aim to achieve cities and human settlements where all persons are able to enjoy equal rights and opportunities, as well as their fundamental freedoms, guided by the purposes and principles of the Charter of the United Nations, including full respect for international law. [...]
- 13. We envisage cities and human settlements that: [...]
- (b) Are participatory, promote civic engagement, engender a sense of belonging and ownership among all their inhabitants, prioritize safe, inclusive, accessible, green and quality **public spaces** that are friendly for families, enhance social and intergenerational

interactions, cultural expressions and political participation, as appropriate, and foster social cohesion, inclusion and safety in peaceful and pluralistic societies, where the needs of all inhabitants are met, recognizing the specific needs of those in vulnerable situations;

(c) Achieve gender equality and empower all women and girls by ensuring women's full and effective participation and equal rights in all fields and in leadership at all levels of decision-making, by ensuring decent work and equal pay for equal work, or work of equal value, for all women and by preventing and eliminating all forms of discrimination, violence and harassment against women and girls in private and **public spaces**;

The 2007 EU LEIPZIG CHARTER on Sustainable European Cities⁷ sets out the key principles and strategies for urban development policy agreed upon by ministers responsible for Urban Development in EU member states. Within the scope of an integrated urban development policy, the Charter notes the following strategies as being of crucial importance for strengthening the competitiveness of European cities:

"Creating and ensuring high-quality public spaces

[...] the interaction of architecture, infrastructure planning and urban planning must be increased in order to create attractive, user-oriented **public spaces** and achieve a high standard in terms of the living environment, a "Baukultur". Baukultur is to be understood in the broadest sense of the word, as the sum of all the cultural, economic, technological, social and ecological aspects influencing the quality and process of planning and construction. However, this approach should not be limited to **public spaces**. Such a "Baukultur" is needed for the city as a whole and its surroundings. Both cities and government must make their influence felt. This is particularly important for the preservation of architectural heritage. Historical buildings, **public spaces** and their urban and architectural value must be preserved. Creating and safeguarding functional and well-designed **urban spaces**, infrastructures and services is a task which must be tackled jointly by the state, regional and the local authorities, as well as by citizens and businesses."

Numerous other documents provide guidelines for improving the provision of urban public space worldwide, including the document *PLACEMAKING AND THE FUTURE OF CITIES*,⁸ the preamble to which describes its purpose as: "a guide for use by municipal leaders in creating future **public space** projects. It is based on the premise that **public space** is an important key to building inclusive, healthy, functional, and productive cities and that better **public spaces** can be created through the place–making approach. It proposes 10 Principles for place–making and illustrates how they have been applied in real life situations through 10 case studies from different cities across the world."

1.3. National legislation and policies

The legal framework and relevant municipal mechanisms related to public space development at local level comprises several laws and by-laws, national strategies and urban planning documents.

The <u>Law on Spatial and Urban Planning (LSUP)</u>⁹ governs the system of spatial and urban planning as a basis for providing conditions for quality living. This law regulates land use and prescribes conditions for the provision of basic services (Article 1).

The LSUP regulates the conditions and system of spatial and urban planning, the types of documentation necessary for planning and procedures for preparing and adopting urban plans, as well as other issues in the field of spatial and urban planning. Spatial and urban planning is a

⁷ LEIPZIG CHARTER on Sustainable European Cities: http://docplayer.net/23229629-Leipzig-charter-on-sustainable-european-cities.html

⁸ PLACEMAKING AND THE FUTURE OF CITIES. Accessed 01.05.2018: http://www.urbangateway.org/publicspace/document/place-making-and-future-cities-0

⁹ LSUP (2014) "Law on Spatial and Urban Planning". Official Gazette of the Republic of Macedonia, No. 199/2014. Sluzben vesnik, Skopje. (http://www.slvesnik.com.mk/besplatni-izdanija.nspx)

continuous process that includes the preparation, adoption and implementation of the Spatial Plan, urban plans and urban planning documentation in order to ensure the design/arrangement and humanization of the space and the protection and promotion of the environment and nature (Article 2).

The Ordinance on Standards and Norms for Urban Planning (OSNUP)¹⁰ prescribes the standards and norms for urban planning to be applied in the preparation and implementation of urban plans, urban planning documentation, master plans for general urban plans, in accordance with the LSUP (Article 1). The standards and norms of the Ordinance are designed to ensure decent living and working conditions, balanced and sustainable spatial development of settlements and buildings, rational and sustainable use of space, protection of the immovable cultural heritage, and protection and promotion of the environment and nature. The Ordinance sets out the principles necessary for the preparation and implementation of urban plans and urban planning documents.

However, the concept and importance of public space is comprehended in these legal acts and the legal framework for the planning, design, construction and maintenance of urban public space. The laws and by-laws recognise some types of public space, e.g. streets, children's playgrounds, sport fields, parks, etc., and set out basic norms and standards for these. Provisions related to squares, riverfronts and other types of public space are expected to be part of urban planning and design during the preparation of urban plans and projects.

The relatively new <u>Law on Urban Greenery</u> (LUG)¹¹ covers issues of greenery in urban environments. Although this law recognizes "greenery for public use" and "space for planting greenery", these are not as referred to as "public space".

Managing and maintaining public space is prescribed by the <u>Law on Self-Government</u> (LSG)¹² and the <u>Law on Communal Activities</u> (LCA),¹³ which stipulate the responsibilities of local government units for maintaining and managing public space.

The <u>General Urban Plan for the City of Skopje 2012–2022</u>¹⁴ is a key document prescribing future urban development over a 10-year period. Urban plan public space is recognized in this document only in the section on "Greenery, sports and recreation", where the provision of green space is prescribed per capita. Public squares, as types of open public space, are mentioned in this document only in terms of rearranging existing squares in the city.

A document entitled a <u>Study on greening and forestation of the area of the City of Skopje</u>¹⁵ was prepared in 2015 by a large group of experts. This study adopted a holistic approach, providing the following guidelines for:

- Improving the quality of the environment through promoting of the City of Skopje's policy for securing land intended for public greenery / urban green space and promoting directions for further activities of the City;
- Improving the qualitative, environmental, social, health and other functions of public green areas;
- Achieving the identity of the urban structure and the urban environment;
- Achieving new landscape values.

OSNUP (2015) "Ordinance on standards and norms for urban planning". Official Gazette of the Republic of Macedonia, No. 142/2015. Sluzben vesnik, Skopje. (http://www.slvesnik.com.mk/besplatni-izdanija.nspx)

[&]quot;LUG (2018) "Law on Urban Greenery". Official Gazette of the Republic of Macedonia, No. 11/2018. Sluzben vesnik, Skopje. (http://www.slvesnik.com. mk/besplatni-izdanija.nspx)

¹² LSG (2002) "Law on Self-Government". Official Gazette of the Republic of Macedonia, No. 5/2002. Sluzben vesnik, Skopje. (http://www.slvesnik.com.mk/besplatni-izdanija.nspx)

LCA (2018) "Law on Communal Activities". Official Gazette of the Republic of Macedonia, No. 95/2012. Sluzben vesnik, Skopje. (http://www.slvesnik.com.mk/besplatni-izdanija.nspx)

¹⁴ GUP Skopje (2012) General Urban Plan for the City of Skopje 2012–2022, City of Skopje.

¹⁵ Study on greening and afforestation of the area of the City of Skopje. (2015) City of Skopje, Skopje.

The results of the study are summarized as follows:

- Recommendations for creating a connected system and network of urban green areas and green corridors in the City and its surroundings;
- Guidelines for securing land for open green public areas (spaces); and
- Defining criteria for changing the most suitable types of improvements for green areas.

Notes from the review of national legislation

The review undertaken of national legislation identified an inadequately specific definition of the public spaces in terms of their comprehensive and meaningful inclusion in urban policies, planning, design and maintenance. There is also an unclear definition of the term "open public space" in the legislation, as well as a lack of strategies for more comprehensive provision of quality public spaces in the future. In addition, the urban plans do not provide sufficiently clear quidelines for their provision when arranging urban space.

With regard to the process of preparing urban plans, only the following spaces are recognized in the valid documents that regulate construction in the cities and parts of the cities: streets (with their entire profile: pavements, sidewalks, bicycle lanes, tree-lines, etc.), squares, open children's and sports playgrounds and parks. However, in terms of clear norms and standards for streets, the focus is on the traffic infrastructure and is car-centred in approach, while provisions for other public spaces are lacking or inadequate. The current urban plans include very little evidence of care for ensuring quality public space or for the provision of new public space. Parcels of existing public spaces or undefined parcels in the property of the state are most often used for the completion of private plots or planned for car parks, causing a constant reduction of public space.

This Profile thus emphasises the importance of adopting the UN recommendations regarding the provision of quality urban areas and the monitoring of urban development to ensure that planning is sustainable and in accordance with the UN's Global Sustainable Development Goals, especially SDG 11. These goals should become part of all strategic documents at national and local level as soon as possible. It is necessary to harmonize the country's Strategy for Sustainable Development and Spatial Plan, as well as all urban plans, with globally accepted goals, comprehensively integrating SDG 11 and Target 11.7.

1.4. Typology of urban open public spaces

This section on the Typology of Public Spaces details the sites, components and qualities described in the terms and definitions of several relevant documents.

The GLOBAL PUBLIC SPACE TOOLKIT¹⁶ lists the following types of public space:

Streets as Public Spaces. This first category includes public spaces that are used most intensely in our daily lives:

- streets, avenues and boulevards
- squares and plazas

¹⁶ GLOBAL PUBLIC SPACE TOOLKIT. Accessed 01.05.2018: https://unhabitat.org/wp-content/uploads/2015/10/Global%20Public%20Space%20
Toolkit.pdf; https://www.urbangateway.org/publicspace/document/global-public-space
toolkit.pdf; http://www.urbangateway.org/publicspace/document/global-public-space-toolkit; https://www.urbangateway.org/publicspace/document/global-public-space-toolkit; https://www.urbangateway.org/publicspace/document/global-public-space-toolkit; https://www.urbangateway.org/publicspace/what-public-space">https://www.urbangateway.org/publicspace/what-public-space

- pavements
- passages and galleries
- bicycle paths

These are public spaces in the full sense of this term because they are publicly-owned and maintained, accessible to all without charge and at all hours of the day and night. Public spaces in this category are also the most versatile in terms of public enjoyment: they can host open-air markets, performances, events, political rallies, demonstrations and informal sector activities. They also allow for the essential urban function of mobility. Thus they can be defined as multiuse public spaces. One critical feature of these spaces is that they are the most vulnerable to a single use dominating other possible uses, such as motor vehicles prevailing over pedestrian use and endangering non-motorized mobility.

Public Open Spaces. A second category comprises green open public spaces, i.e. the urban features that most commonly come to mind when we think of public spaces and the features we use on a daily basis.

These include:

- parks
- gardens
- playgrounds
- public beaches
- riverbanks and waterfronts

These spaces are also available to all citizens without charge and are normally publicly owned and maintained. In many cases, however, 'public open spaces' are accessible during daylight hours only.

Public Urban Facilities. A third category of public spaces comprises high-maintenance public facilities that are publicly-owned and maintained and are accessible to users without charge, such as:

- public libraries
- civic/community centres
- municipal markets
- public sports facilities

In many cases, these facilities are only accessible during daylight hours or operating hours.

The CHARTER OF PUBLIC SPACE¹⁷ contains the following definitions:

II. Typologies of Public Space

13. Public spaces can be defined as: a) spaces that have an exclusive or predominantly functional character; b) spaces that presuppose or favour individual use; c) spaces that, in their mix of functions, form and meanings, and by connecting the built with the non-built, have the primary role of aggregation and social condensation. In the network of these latter functions is the essence of the citu.

¹⁷ CHAPTER OF PUBLIC SPACE. Accessed 01.05.2018: (http://www.inu.it/wp-content/uploads/Inglese_CHARTER_OF_PUBLIC_SPACE.pdf)

14. Public spaces:

- a) Public spaces provide the essential physical network and support for the movement of people and means of transport, on which the vitality of the city depends;
- b) Public spaces host markets and accessible commercial activities in fixed premises, public venues and other services (collective and otherwise, public and private), in which the socio-economic activities of the city are manifested;
- c) Public spaces such as parks, gardens, and public sports facilities offer valuable opportunities for recreation, physical exercise and relaxation.
- d) Public spaces such as museums and libraries facilitate education and culture;
- e) Public spaces are places of individual and collective memory, where the identity of the people is mirrored and finds sustenance, growing in the knowledge that they are a community;
- f) Public spaces promote conviviality, encounters, and freedom of expression;
- g) Public spaces are an integral and meaningful part of the urban architecture and landscape, with a determinant role in the overall image of the city;

15. Public spaces thus represent the principal resource available to public administrations from which to build integrated policies and a broad range of urban planning, of morphological and functional upgrading of the urban fabric and of social and economic regeneration.

The country's <u>Law on Urban Greenery</u>¹⁸ defines the following types of green public spaces:

I. TYPES OF GREENERY

Article 7

According to this Law, urban greenery includes:

- 1) public greenery and
- 2) other greenery.

Public greenery

Article 8

- (1) Public greenery shall mean the green areas or the land intended for landscaping referred to in Article 1 paragraph (2) of this Law, with the basic purpose of being urban greenery, and are under the jurisdiction of the municipality, the Municipality of the City of Skopje and the City of Skopje.
- (2) Public greenery is a commodity for general use.

Article 9

Types of public greenery are:

- parks
- park-forest;
- green squares;
- tree-lines:
- green corridors;
- protective greenery;
- uneven greenery, and
- other greenery in public open spaces.

There is no legislation in the country that stipulates a typology of open public spaces; the provision of public spaces is regulated only through the adoption of urban plans. It is left to the expertise and creativity of the planners to recognize these spaces in their existing state and to protect, improve or create new spaces and ensure the functionality of the public space through the process of implementing the plans. The only type of recognised public space, i.e. green public spaces, and this recognition is usually embedded in urban plans that protect the space, though to an inadequate extent.

It is necessary to prescribe and create an applicable typology that must be incorporated in the planning of urban spaces. This requires additions to the standards and norms for urban planning, as well as the adoption of new rulebooks, manuals, etc.

¹⁸ LUG (2018) "Law on Urban Greenery". Official Gazette of the Republic of Macedonia, No. 11/2018. Sluzben vesnik, Skopje. (http://www.slvesnik.com. mk/besplatni-izdanija.nspx)

1.5. Definitions of quantitative and qualitative indicators relevant to public space (SDG 11.7)

In the Sustainable Development Agenda 2030 the provision of public space is prescribed as part of SDG 11, which is a commitment to "Make cities and human settlements inclusive, safe, resilient and sustainable". Target 11.7 declares the following commitment: "By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities."

Two indicators have been established for measuring and comparing Target 11.7.

Indicator 11.7.1: Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities.

This indicator measures **the amount of open public areas in cities**. It is widely recognized that improving and sustaining public spaces serve to enhance community cohesion, civic identity and quality of life.

UN Habitat provides the following methodology for measuring SDG 11, Target 11.7:19

The method to estimate the area of public space is based on three steps:

- 1) spatial analysis to delimit the built-up area of the city;
- 2) estimation of the total open public space, and;
- 3) estimation of the total area allocated to streets.

Proportion of total public space area as of the total city coverage, including the land allocated to streets. The indicator is calculated integrating the following two metrics: a) land allocated to open public space; b) land allocated to streets.

The Proportion of urban area allocated to open public spaces, including street and sidewalks, is calculated with the following equation:

Benchmark:

Proportion of Total Open Public Space	Total Open Public Space (%)	Land Allocated to Streets (%)
Min = 0 %	Min = 0 %	Min = 0 %
Max = 45 %	Max = 15 %	Max = 30%

Indicator 11.7.2: The proportion of the population who have been victims of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months.²⁰

This indicator has so far been defined and incorporated by <u>UN-Women</u>,²¹ and the proposed methodology measures only the proportion of victims who are women aged 15+.\\

¹⁹ https://unstats.un.org/sdgs/files/metadata-compilation/Metadata-Goal-11.pdf

https://unstats.un.org/sdgs/tierIII-indicators/files/Tier3-11-07-02.pdf

²¹ https://unstats.un.org/sdgs/files/metadata-compilation/Metadata-Goal-11.pdf

Calculation:

Sub-classifications can be made for specific categories of perpetrators according to the location of the occurrence of the most recent incident of harassment (e.g. sexual harassment occurring at work as compared to in public spaces).

This indicator is further developed also in relation to the total number of people using the specific public space, and is given as:

Potential Disaggregation:

- Disaggregation by age
- Disaggregation by race/ethnicity
- Disaggregation by perpetrator
- Disaggregation by place of occurrence (e.g. street, public parks, public transportation, school, work, etc.)

The proposed methodology developed by UN HABITAT²² for measuring indicator 11.7.1 has been used in this Profile for the first time in this country and is expected to demonstrate the relevance and measurability of the given parameters. The test has been conducted on two samples (10ha) in the Municipality of Centar in the territory of the City of Skopje.

²² https://unstats.un.org/sdgs/files/metadata-compilation/Metadata-Goal-11.pdf

2. CASE STUDY: THE MUNICIPALITY OF CENTAR IN SKOPJE

2.1. Context

<u>Skopje</u>, the capital of Macedonia, is the administrative, economic, educational, health and cultural centre of the country, with a population of 506,926 inhabitants in an area of 8,789.8 ha. The city consists of 10 municipalities with their own local self-government, as well as a joint authority, i.e. the City of Skopje, each with their own responsibilities and rights.

Like many cities in neighbouring countries, Skopje has undergone processes of radical political, economic and social transformation that have affected urban development with consequences for the city's building environment and the overall quality of life in the city. The city attracts migration from throughout the country as result of the collapse of necessary economic, social, cultural and other facilities and services in other towns and cities.

As a result of these factors the city has been undergoing intense construction and there has been significant usurpation, damage and reduction of the urban public space. The ensuing problems experienced by the citizens of Skopje include a deteriorating environment and reduced quality of life, with severe air pollution and noise pollution and increasing health problems.

The Municipality of Centar, as the name suggests, occupies the central part of the City of Skopje and is home to the most prominent administrative, business, health and cultural institutions. The Municipality of Centar has 45,412²³ inhabitants in an area of 752 ha. (i.e. 8.6 % of Skopje).²⁴ The municipality has a high density of residential buildings and has long been highly desired as a location to live and work. However, the growing pressures that affect the whole city also affect this area the most, and the already limited amount of public open spaces in the municipality is rapidly diminishing.

The day-to-day diminution of public spaces and declining living conditions has led to an increase in civil initiatives demanding the authorities take immediate action to address these problems.

In this context, the efforts of the United Nations as part of Agenda 2030 for the protection of public space are highly relevant and timely, and the research undertaken for this Profile is thus of great importance for the city as a whole.

2.2. Methodology

The research involved two main research techniques applied in accordance with UN-methodology, adapted to local characteristics and conditions:

- Analysis using GIS as an advanced technology tool to identify, calculate and analyse public spaces;
- **Spot analysis with field work** as a conventional approach necessary for understanding the characteristics of public spaces.

The research was carried out on two samples of 10ha in diameter, selected to depict two specific urban matrices characteristic both of the area of the municipality of Centar as well as for the City of Skopje as a whole.

One sample was selected from within the 'Debar Maalo' neighbourhood, which has a traditional urban matrix, and a second from the 'City Wall' area, with a modern urban matrix. The two samples differ in urban morphology, in the ratio of public and private property, and in attitudes towards public space and their infrastructure.

²³ http://www.stat.gov.mk/Publikacii/PDFGodisnik2013/03-Naselenie-Population.pdf

²⁴ http://opstinacentar.gov.mk/%D0%9F%D1%80%D0%BE%D1%84%D0%B8%D0%BB

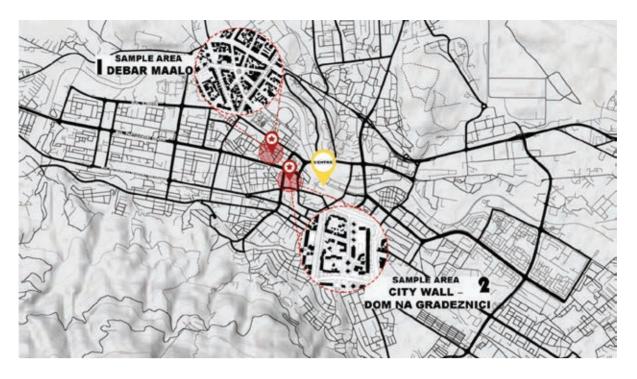


Figure 1. Sample area 1:- Debar Maalo; Sample area 2: City Wall - Dom na gradeznici

GIS Analysis

The analysis included GIS tools: Q-GIS and ArcGIS Desktop.

The initial steps included:

- identification data sources
- data standardization
- data cleaning, re-projecting and verifying
- data integration and calculation

The data sources identified included available open data published by the Cadastre Agency, by the Municipality of Centar, and by public agencies from the City of Skopje. In addition, Google Maps and available orthophoto maps were entered as basis maps for checking accuracy.

Applying the data standard and formatting involved:

- Coordinate system identification
- Re-projection of data to a common standard to enable data overlapping
- Identification of the codes and attributes used in the data tables
- Classification and recognition of common IDs for cross-referencing
- Detection of the naming codes in the urban plans
- Detection of street classification

Data reprojection involves the selection of the Coordinate System, zone and code for selected area. Reprojection of all GIS data to the common Coordinate system was performed using GIS tools.

'Integration of data' is defined as having a single GIS project file a with complete set of data required for the analytics.

The analytical process was conducted using GIS tools, including the following steps:

- A. Identifying and classifying parcels according to their use and ownership:
- (1) private parcels with houses or buildings, following the codes used for Urban Planning (A1, A2 and mixed usage)
- (2) state-owned/public parcels of open space or dedicated for specific use (green areas, streets and sidewalks, playgrounds or open parking are not classified due to limited or unavailable data)
- (3) state-owned objects/buildings
- Classifying state-owned parcels following the codes used for Urban Planning (B classes for public institutions, health or education service)
- Identifying the total area of the parcel, the area of the building plot and green/open areas in the same publicly-owned parcel
- Identifying whether the area is closed or open for public use
- B. Calculation and classification of the area of interest:
- (1) The area is defined with the following parameters: 180 m^2 buffer from defined point (x,y)
- (2) The total area calculated
- (3) The total number of private parcels used for A1, A2 and compatible mixed usage
- (4)The total area of public parcels dedicated for specific use
- (5) The total area of building plots in the public parcels
- (6)The total area of public open parcels used as green areas, for parking, or closed for public use
- (7) Calculation of the complete area covered by unspecified usage (streets, sidewalks, playgrounds, green areas, pedestrian areas, squares, etc.)
- C. Illustrations and map presentations of the area of interest analysed.

Spot analysis with field work

The spot analysis included:

An Analytical Survey performed over four consecutive days – two working and two weekends days, with one working day plus one weekend day as contingency.

The measures were conveyed in time frames of 15 minutes on every two hours (8:00h-20:00h) for the respective locations of the selected blocks. The time-frames for each location were the same at each particular time of day in order to gather applicable statistical data.

Capturing these metrics efficiently over an extended period of time provided an overview of the actual public space engagement. The survey focused on several aspects of such engagement, including the age and gender of people engaging with the space.

Measuring pedestrian activity as well as flow was conducted using forms specially designed by UN Habitat in collaboration with the Faculty of Architecture Skopje (Annex 1).

The assessment of public space quality was conducted for every selected location within the two sample urban blocks on the following key parameters: Engagement Possibilities; Safety; Urban Equipment; Level of Maintenance; Connectivity; Architectural Styles; and Quality of the existing landscaping. The assessment is descriptive and focuses on the following modulations: Frequency; Design Features; Quantity and Physical Condition of the urban equipment and materials used in a particular public space.

2.3. Sample - "Debar maalo" neighbourhood

The first case-study fragment of 10 ha is part of the neighbourhood of "Debar Maalo", located in the centre of Skopje.



Figure 2. Sample area 1:- Debar Maalo

2.3.1. GIS analysis

Coordinate system: MK State coordinate system, zone 7, Code 6316

The analysed area is defined with the following parameters: 180 m^2 buffer from point with: x=7.535.492,611, y=4.650.792,437 m

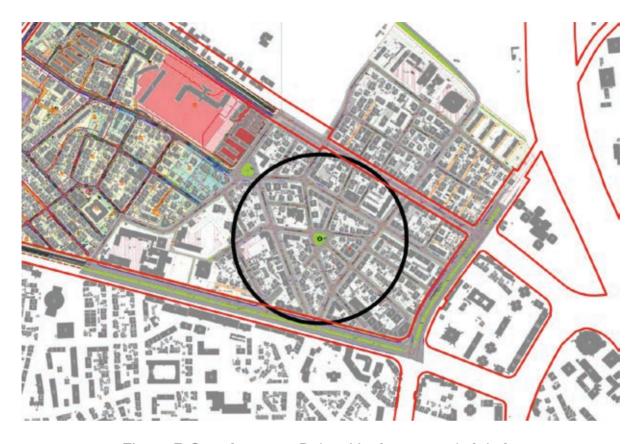


Figure 3. Sample area — Debar Maalo: covered global

Analytical process description and results:

Identifying and classifying parcels by their use and ownership:	Calculation and results	Illustration
Total Area covered	101.713 m2	

	I	
Total number of parcels	A total 188 parcels were involved, 40 out of 188 cut with the created buffer.	Figure 4. Sample area – Debar Maalo: covered by parcels
Private parcels with houses or buildings, following the codes used for Urban Planning (A1, A2 and mixed usage)	Houses and Buildings classified as A2 ²⁵ no. 174, total area 55.337m2 A4 no. 1, total area 340m2 A2+A4 + mixed usage area included	Figure 5. Sample area – Debar Maalo: private parcels selection in red
Total Area private parcels	55.677 m ²	
Public objects/ parcels classification of state-owned parcels following the codes used for Urban Planning	V1 – Kindergarten – 1, Area 1.785m² V2 – Health institutions – none V3 – Cultural institutions – none V4 – Public Institutions – 1, Ministry of Culture, Area 2.845,8m² V5 – 1 parcel with 765m²	Figure 6. Sample area – Debar Maalo: public parcels in yellow
Total Area of public parcels	5.395 m ²	

²⁵ Land use in urban planning regulation in Macedonia is designated by the following "classes of usage" marked with letters: A- housing; B- commercial and business buildings; B- public institutions; G- production, distribution and services; D- greenery, sports, recreation and memorial spaces; E-infrastructure (Official Gazette of the Republic of Macedonia, No. 142/2015)

Other parcels	B, A2 class - 3 parcels, total area 640m² B4 1 parcel, area 1754 m² E5 (Garage/Parking) 5 parcels, 150m²	
Total other	2.544 m ²	

State-owned/ public parcels open or dedicated for specific use (green areas, streets and sidewalks, playgrounds or open parking) are not classified due to limited data or no data availability.	38.097m2	Figure 7. Sample area — Debar Maalo: undefined public spaces_ Streets
 Identifying the total area of the parcel and the area of the building plot 	V4 - Area 2.845,8 m ² Cadastral data on K.P. 9819: 1952m ² garden/yard, 900m ² under buildings. B1 - Area 1785m ²	
 Possible open public space in the garden of B4 	1.952m² garden/yard	
 Identifying if the area is closed or open for public use 	No garden areas of public institutions are open for public use	

Total Results:

Debar Maalo Krug

	20001 7 10010 1 111	-9			
%	Total Area cover	ed			101.713
54,73932	Private parcels				55.677
5,30414	Institutions (Pub	lic)			5.395
2,501155	Other				2.544
37,45539	use (green areas	blic parcels open or , streets and sidewa classified due to limit	ks, p	laygrounds or open	38.097
•	tion of total =	Total surface of open public space	+	Total surface of land allocated to streets	x 100
open p	ublic space	Total surface of th urban ag		•	(%)

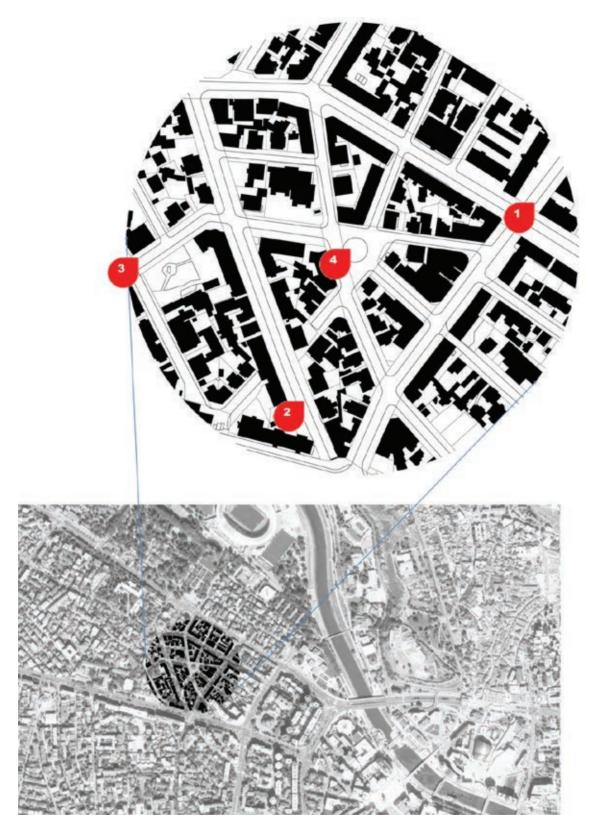


Figure 8: Sample area – Debar Maalo: 1. Aminta III Street; 2. Miroslav Krlezha Street; 3. Antonie Grubishikj Street; 4. Krug Square

Streets comprise the largest area of public space in Debar Maalo, closely reflecting the words of Jane Jacobs (1958): "the street works harder than any other part of downtown...it is the nervous system; it communicates the flavor, the feel, the sights...it is the major point of transaction and communication."

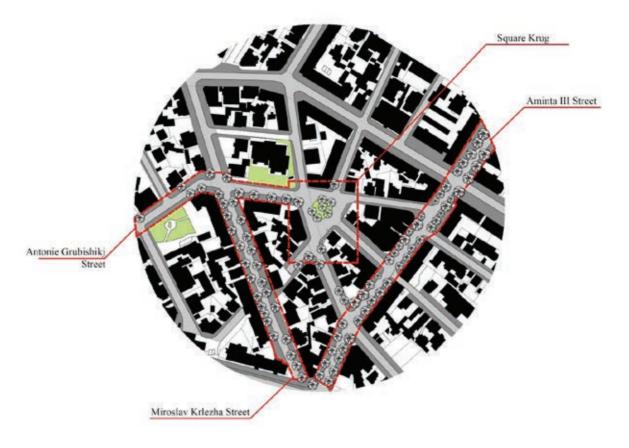


Figure 9: Debar Maalo map

"Debar Maalo" is a predominantly residential neighbourhood of low-rise residential buildings and houses with private gardens. Its streets belong to the category of residential city streets.

These streets are not just mere surfaces for traffic that facilitate travel from one place to another, however; the streets of "Debar Maalo" are stages for the public and social life of Skopje. They are the main attractors that make this neighbourhood vibrant, due to the wide variety of cafes, bars and restaurants. The numerous places for socializing in this area make it a lively place that is highly popular with people of all generations.

Although Debar Maalo is a mainly residential neighbourhood, the activities it fosters are not conducted solely by local residents. People from throughout the whole city revolve around this neighbourhood, including from all generations and genders, engaging with the area either passively (sitting at tables by the pavement or in the street, talking and listening) or actively (walking, often with children in prams, playing, etc.), though the predominant users are males ages 15–64.

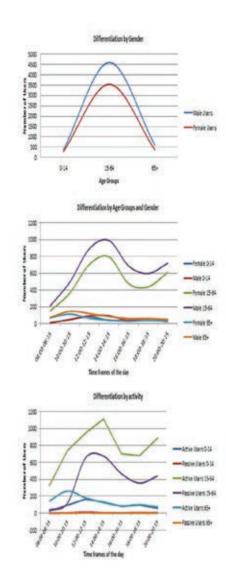


Figure 10: Activities and flows in two working and two weekend days on all four streets

Located close to the core of the city centre, the streets of Debar Maalo form part of a network connecting important assets and places together, linking the city park and the stadium, for example, and the important city boulevards of "Partizanski Odredi", "Kliment Ohridski", "Ilindenska" and "Ruzveltova". Being such a permeable neighbourhood, with a high level of accessibility and connectivity, generates a dynamic and multi-layered flow throughout the whole day. Besides the connectivity of the streets, this flow is determined by the concentration of venues for drinking and dining in the neighbourhood.

In <u>terms of traffic</u>, cars dominate the neighbourhood and there is no public transport. This domination of cars, whether parked or in motion, conflicts with many non-motorized uses of the streets as a public space. All sidewalks without barriers are occupied by parked cars. The sidewalks are also occupied by outdoor seating for bars and restaurants, including tables, decorative elements and structures for providing shade. The monopolisation of sidewalks by parked cars and outdoor seating leaves pedestrians excluded from the pavements, forcing them to share the asphalt surfaces with cars and cyclists.

<u>Issues of public safety and comfort</u> arise from this conflict of uses of public space. People's sense of safety in the streets depends on the traffic flow and presence of cars and varies from working days to weekend days. Moving around this neighbourhood involves negotiating parked cars and the tables and chairs of bars and restaurants, always on the lookout for cars in motion and cyclists while at the same time tackling obstacles and barriers of different kinds and changes in road levels and surfaces.

Despite these issues of <u>mobility</u> and the domination of cars, the streets of Debar Maalo function as a place, providing opportunities to sit and relax, mainly in bars, though also on the steps of buildings in the absence of sufficient public benches.

<u>Commerce</u> is also present in some streets, so that shopping is included as an activity in this sample. Those who do not shop in the neighbourhood itself may nevertheless pass through Debaar Maalo on their way to or returning from shows nearby, especially to and from the Bunjakovec market. However, the level of multiple activities is not high, with socializing in bars and restaurants and transiting constituting the main activities.

The coffee shops, bars and restaurants of Debar Maalo are busy throughout the whole day, every day of the week, with people meeting before going to work, taking coffee and food breaks, conducting business meetings, having lunch with colleagues, meeting after work for drinks, up to the end of the day when the bars become the main places for late night activities. In the evenings the streets of Debar Maalo streets are filled with noise, with each bar playing different kinds of music, often with DJs and live bands. Many people tend to gather around particular bars according to the musical selection they offer (e.g. techno, turbo-folk, pop, etc). In recent years the neighbourhood has begun to see the use of venues as exhibition spaces, with bars hosting various art and media events.

Due to the high <u>pedestrian flow</u>, Debar Maalo attracts a number of poor citizens, often selling cheap products.

<u>Morphologically</u> speaking, the Debar Maalo streets are quite straight and linear in their layout, while the urban blocks they form are rectangular or triangular. The roads are mostly narrow with two lanes, not allowing for fast and heavy traffic.

All_of the streets are in relatively good physical condition. There are occasional cracks in the pavements and the asphalt, but generally these do not interrupt the activities of the neighbourhood. The streets differ in terms of flows of people and traffic and in the concentration of bars and restaurants; however, the concentration of parked cars is high throughout.

<u>Amenities and equipment</u> include street lights, waste bins, traffic signs and parking notice boards, and while these are mainly in good condition, they are insufficient in quantity.

<u>Natural elements</u> in the neighbourhood include tree-lined streets and jardinières with greenery on some of the streets. In general, however, paved areas greatly outnumber green areas.

All of the findings outlined above are based on measurements undertaken on the following four streets, i.e. public spaces, in Debar Maalo: Aminta III Street, Miroslav Krlezha Street, Antonie Grubishikj Street and Krug Square. The measurements were conducted on two working and two weekend days in a week.

2.3.2.1. Aminta III Street (Leninova St.)²⁶

Aminta III Street is the busiest of all the streets in Debar Maalo, as well as being the widest street with the largest number of bars, facilitating transit from the city centre towards the City Park and Stadium.



Figure 11. Aminta III Street

Activity and Use	
ACTIVITIES:	Walking, Walking with Children, Walking with Prams, Cycling, Standing, Talking/Listening, Sitting in Bars, Begging for Money
SERVICES:	Drinking, Dining, Parking
TRADE:	Newsagents, Tobacco shops, Food stores, Newsletter Store
ARTISTIC PERFORMANCES:	Band or DJ performances in the bars
OTHER ELEMENTS:	Traffic Signs, Parking Payment Notice Boards, Waste Bins and Containers, Street Lights

Access and Flow	
EASILY ACCESSIBLE:	10 access points
LARGE FLOW:	At street level, due to sidewalks occupied by cars, bar tables and pergola structures

Safety and Comfort	
VISIBILITY:	There is no interrupted visibility within the street
INSECURITY:	Lack of areas designated exclusively for pedestrians
PERCEPTION:	Vibrant street with bars and lots of parked cars

²⁶ Leninova is the old name of the street that remains more familiar to local residents.

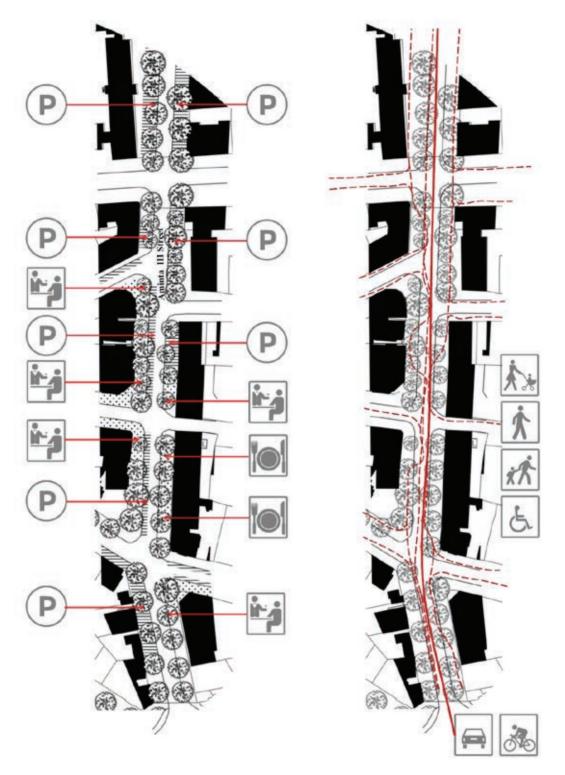
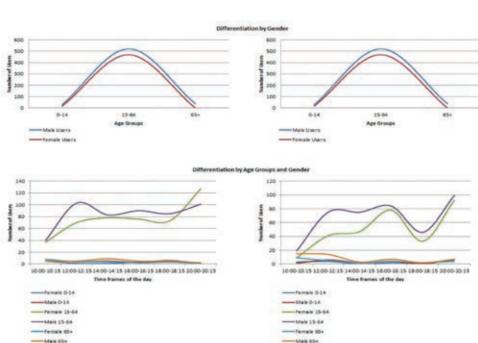


Figure 12. Use of public space on Aminta III Street Figure 13. Pedestrian flows and mobility on Aminta III Street



Weekend Day

Working Day

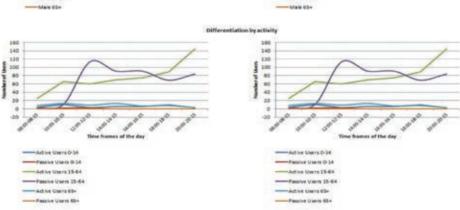


Figure 14. Activities and flows on Aminta III Street on working day vs. weekend day

From the measurements conducted on this street, illustrated in the charts above, we can conclude that in terms of gender differentiation males comprise a slightly larger proportion of users of the space than females. The prevailing age group of users is 15–64, in contrast to the categories 0–14 and 65+. As the busiest street with a high concentration of bars and restaurants, the most common passive use of the public space is sitting at tables, especially between the hours of 12:00–18:00, while the most common active use of the street is walking. All aspects apply to both working days and weekends.

2.3.2.2. Miroslav Krlezha Street (Djuro Djakovikj St.)²⁷

Miroslav Krlezha Street, thanks to being a dead-end street, has the lowest frequency of cars, which allows the asphalt to be used for walking, whether alone or with children and prams. This street is also used heaily by people shopping at the nearby Bunjakovec food market.



Figure 15. Miroslav Krlezha Street

Activity and Use	
ACTIVITIES:	Walking, Walking with Children, Walking with Prams, Walking in a Wheelchair, Cycling, Standing, Talking/ Listening
SERVICES:	Parking
TRADE:	Pet Shop
ARTISTIC PERFORMANCES:	Band or DJ performances in the bars
OTHER ELEMENTS:	Traffic Signs, Parking Payment Notice Boards, Waste Bins and Containers, Street Lights

Access and Flow	
EASILY ACCESSIBLE:	4 access points
WELL-EQUIPPED:	Ramps and Stairs at the access point with Partizanski Odredi
MODERATE FLOW:	At street level, due to the occupation of pavements by cars

Safety and Comfort	
VISIBILITY:	There is no interrupted visibility within the street
INSECURITY:	Lack of areas designated exclusively for pedestrians
PERCEPTION:	Streets dominated by car parking and lines of trees

²⁷ The old name that is more familiar to local residents

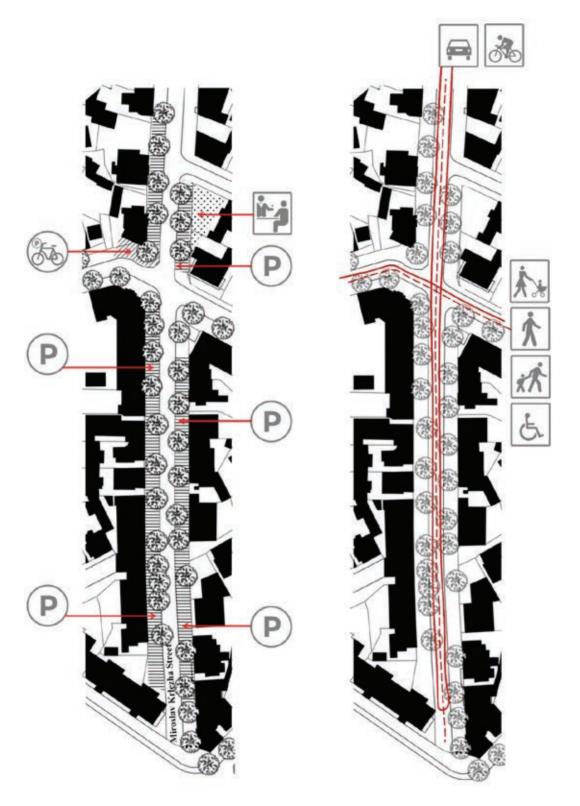


Figure 16. Use of public space on Miroslav Krlezha Street Figure 17. Pedestrian flows and mobility on Miroslav Krlezha Street

Working Day

Weekend Day

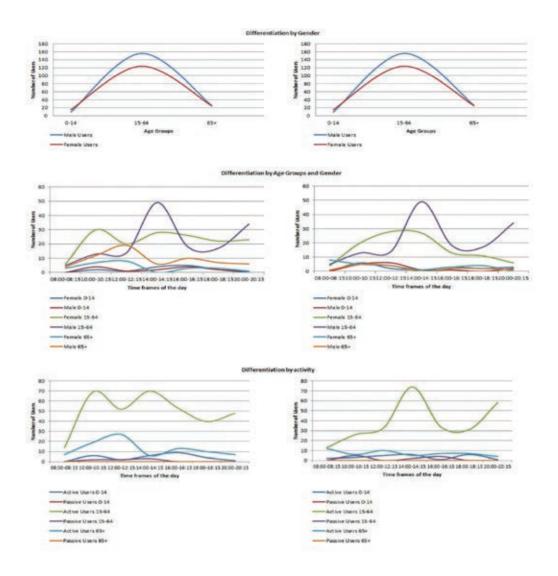


Figure 18. Activities and flows on Miroslav Krlezha Street on working days vs. weekend days

The charts above again show a slightly number of male users than female. As a street that leads to the Bunjakovec food market, female users aged 15–64 are the predominant users in the morning hours, while males outnumber females in the later hours. Due to its having a deadend and serving as a promenade for many people, walking is the most common active use of the street. There is no significant difference between the use of the street in working days and weekend days.

2.3.2.3. Antonie Grubishikj Street

Antonie Grubishikj Street also has some bars, while between 10 and 12am there are many children playing in the Kocho Racin kindergarten. Like Miroslav Krlezha Street, Antonie Grubishikj Street is also used by people coming to and from the local food market. Along the sidewalks, there are jardinières with greenery.



Figure 19. Antonie Grubishikj Street

Activity and Use	
ACTIVITIES:	Walking, Walking with Children, Walking with Prams, Moving by Wheelchair, Cycling, Standing, Talking/ Listening, Sitting in a Bar/Street
PLAY:	Children play within the fenced-off schoolyard of the kindergarten
SERVICES:	Drinking, Dining, Parking
TRADE:	Home Appliance Store
ARTISTIC PERFORMANCES:	Band or DJ performances in bars
OTHER ELEMENTS:	Traffic Signs, Parking Payment Notice Boards, Waste Bins and Containers, Street Lights

Access and Flow	
EASILY ACCESSIBLE:	6 access points
MODERATE FLOW:	At street level, due to pavements being occupied mainly by cars and bars' tables

Safety and Comfort	
VISIBILITY:	There is no interrupted visibility within the street
INSECURITY:	Lack of areas designated for pedestrians
PERCEPTION:	Street dominated by car parking

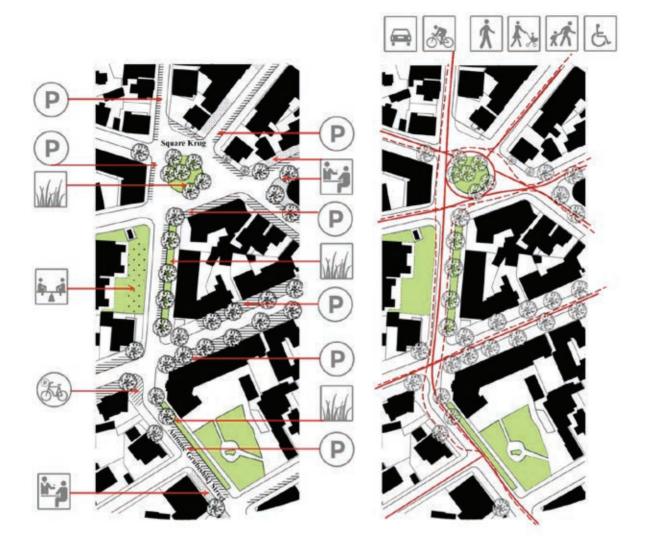


Figure 20. Use of public space on Antonie Grubishikj Street

Figure 21. Pedestrian flows and mobility on Antonie Grubishikj Street

Weekend Day

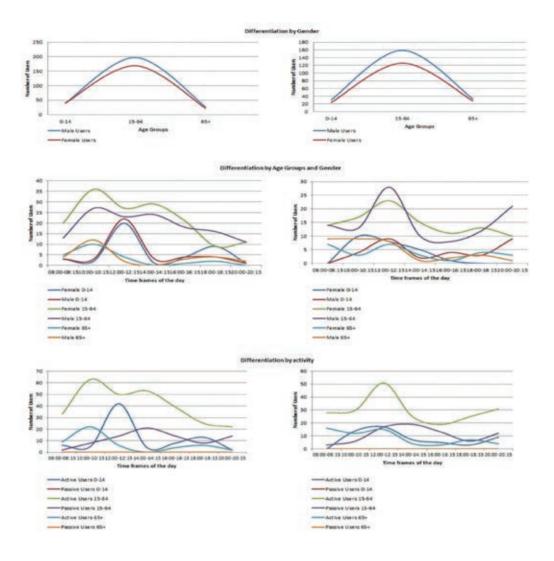


Figure 22. Activities and flows on Antonie Grubishikj Street on working days vs. weekend days

Antonie Gribishikj Street has similarities with Miroslav Krlezha Streets in all three differentiation aspects of activities and flows. Male users of this street slightly outnumber female users, though female users aged 15–64 outnumber males in daylight hours, typically going to and from the nearby Bunjakovec food market. The Kole Nedelkovski primary school and the Kocho Racin kindergarten mean that, unlike other streets, active users include children ages 0–14 playing in the grounds of the school and the kindergarten.

2.3.2.4. **Square Krug²⁸**

The crossroads of Antonie Grubishikj Street and the roads Naum Naumovski Borche, Kole Nedelkovski and Pirinska form a square called **Krug (Circle)**, which was the first and only roundabout in Skopje for many years. With a large circle of fenced greenery at its centre, Krug is the most recognizable and distinctive public space within the Debar Maalo urban fabric. In addition to facilitating car mobility and parking, it is used by people walking through Debar Maalo and people sitting in the bars on the streets forming the square.



Figure 23. Krug Square

Activity and Use	
ACTIVITIES:	Walking, Walking with Children, Walking with Prams, Moving in a Wheelchair, Cycling, Standing, Talking/ Listening, Sitting in a Bar
PLAY:	n/a
SERVICES:	Drinking, Dining, Parking
TRADE:	Drinking, Dining, Parking
ARTISTIC PERFORMANCES:	Band or DJ performances in the bars
OTHER ELEMENTS:	Traffic Signs, Parking Payment Notice Boards, Waste Containers, Street Lights, Greenery bounded by a fence

Access and Flow	
EASILY ACCESSIBLE:	7 access points
LARGE FLOW:	at street level, due to pavements occupied mainly by cars, bars' tables and a construction site

Safety and Comfort	
VISIBILITY:	There is no interrupted visibility within the roundabout/square
INSECURITY:	Lack of areas designated for pedestrians
PERCEPTION:	Square for cars and pedestrians
Working Day	Weekend Day

²⁸ Krug is not the official name, but is known by this name to local people.

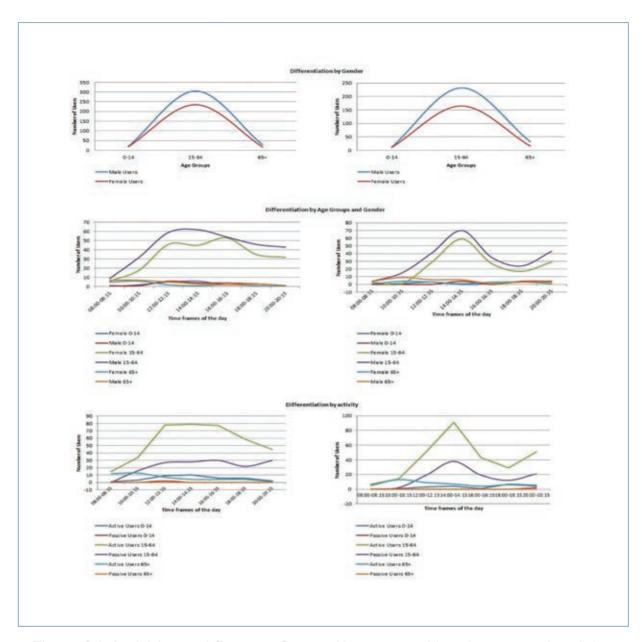


Figure 24. Activities and flows on Square Krug on working day vs. weekend day

Unlike the other streets analysed in this Profile, Krug shows a clearer distinction between activities and users. There are more male users than female users, and the most frequent use of the square is active, i.e. walking. This is the case for both working days and weekends.

2.3.2.5. Potential public spaces in Debar Maalo

Within the samples of Debar Maalo there is some potential for transforming existing 'voids' into public spaces. Three places are proposed as most suitable for future interventions to create new public spaces.

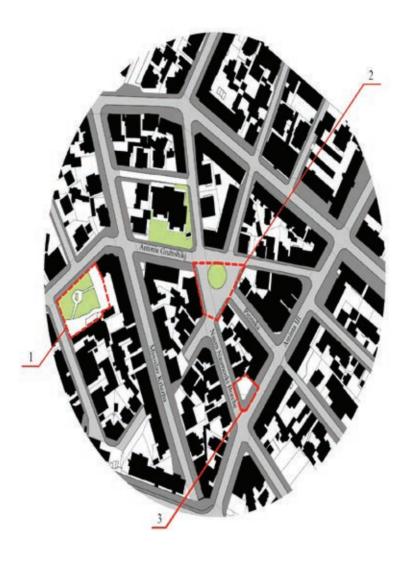


Figure 25. Mapping of potential public spaces in Debar Maalo

<u>Potential public space 1</u>: The most distinctive potential public space is the grounds of the Ministry of Culture. This open space is abundant with greenery but surrounded by a fence and therefore limited to users of the institution within working hours only. Opening these grounds towards the street, as a possible transformation, would provide qualities and possibilities for all people.



Figure 26. Potential public space 1 - Grounds of the Ministry of Culture

<u>Potential public space 2:</u> Krug Square has the potential to be transformed in order to reclaim and protect public space in favour of pedestrians rather than cars. Pedesrianising the streets Naum Naumoski Borche and Pirinska, and transforming the roundabout into a cross roads, could open possibilities for generating pubic space with different qualitative values.



Figure 27. Potential public space 2 - Krug Square

<u>Potential public space 3:</u> Throughout the city, many public spaces are occupied by parking-ticket machines, and this is the case on the pavements around the crossroads of Aminta III Street and Naum Naumoski Borche Street. This corner extension of the pavement is without any particular use at the moment, due to the position of the car parking ticket machine.



Figure 28. Potential public space 3 – sidewalk on Aminta III St. and Naum Naumoski Borche St. cross road

2.4. Sample - The neighbourhood of City Wall - Dom na Gradeznici

The second case-study fragment of 10 ha is part of the well-known neighbourhood of City Wall, located in the centre of Skopje.

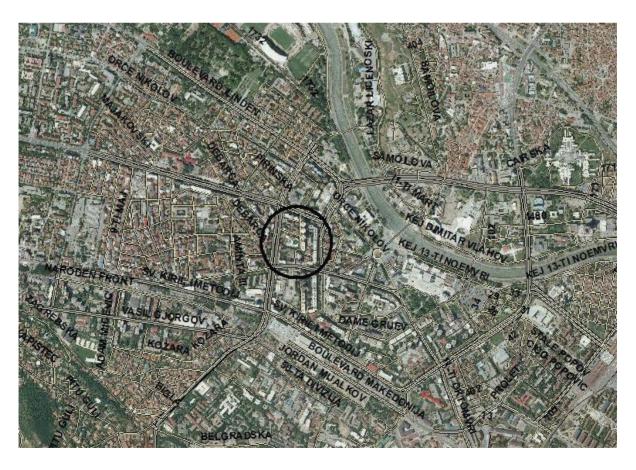


Figure 29. Sample area 2: City Wall - Dom na Gradeznici

2.4.1. GIS analysis

Coordinate system: MK State coordinate system, zone7, Code6316 The analysed area is defined with the following parameters: 180 m 2 buffer from point with: x = 7.535.765,948, y = 4.650.355,297

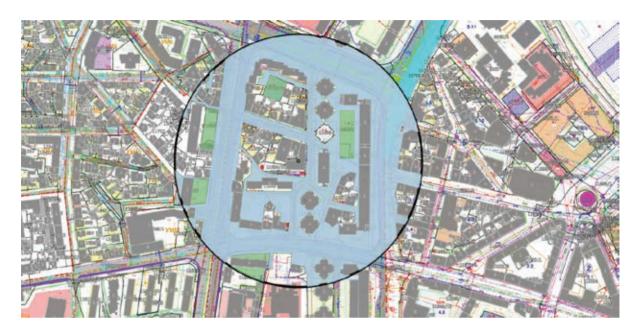


Figure 30. City Wall – Dom na Gradeznici

Analytical process description and results:

Identifying and classifying parcels by their use and ownership:	Calculation and results	Illustration
Total Area covered	101713m ²	
Total number of parcels	94, 26 cross-sectioned with encircled area	Figure 31. Sample area – Gradski zid- Dom na gradeznici: covered by parcels

Private parcels with houses or buildings, following the codes used for Urban Planning (A1, A2 and mixed usage)	Houses and Buildings classified as A1 ²⁹ , A2 no. 70, total area 31.995 m2 A2 including compatible classes, no. 25, total area 6.988 m2	Figure 32. Sample area – Gradski zid- Dom na gradeznici: Private property mixed use
Total Area private parcels	38.983 m2	
Commercial buildings	B1, B4	
Total Area Commercial Buildings	2.394 m2	A SEN
Public objects/parcels Classifying of state owned parcels following the codes used for Urban Planning	B1 – secondary school, 1 parcel, 10627m² (J.B.Tito) B3 – Culture, 1 parcel, 473 m2 (Dom na Gradeznici)	Figure 33. Sample area – Gradski zid- Dom na gradeznici: Build up private and public parcels
Total Area of public parcels	11.100 m ²	
Other parcels specified:	Public area used as parking 2 parcels, Area 1400m ² Public area park/green area, 2 parcels, Area 990m ²	Figure 34. Sample area – Gradski zid- Dom na gradeznici: public space open and green
Total other	2.390 m ²	
State-owned/public parcels open or dedicated for specific use (green areas, streets and sidewalks, playgrounds or open parking are not classified due to limited data or no data availability)	46.846 m²	

²⁹ Land use in urban planning regulation in the Macedonia is designated with "classes of usage" marked with letters: A- housing; B- commercial and business buildings; B- public institutions; G- production, distribution and services; D- greenery, sports, recreation and memorial spaces; E- infrastructure (Official Gazette of the Republic of Macedonia, No. 142/2015)

Total Results:

%	Total Area covered	101.713
38,32647	Private parcels	38.983
2,353681	Commercial Buildings	2.394
10,91306	Institutions (Public)	11.100
2,349749	Other	2.390
	State-owned/public parcels open or dedicated for	

specific use (green areas, streets and sidewalks, playgrounds or open parking are not classified due to

limited data or no data availability),

DOM na Gradeznici

Proportion of total open public space =
$$\frac{\text{Total surface of open public space}}{\text{Total surface of built up area of the urban agglomeration}} = \frac{\text{Total surface of land allocated to streets}}{\text{Total surface of built up area of the urban}} \times 100$$

Proportion of total open public space
$$= \frac{46.846 + 2.390}{101.713} = \frac{49.236}{101.713} = \frac{0,4841x}{100} = 48,41\%$$

2.4.2. Spot analysis with field work

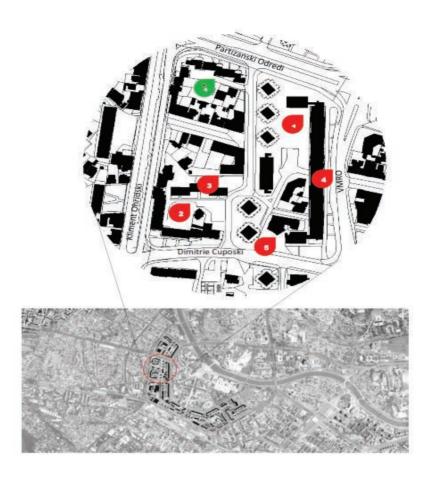


Figure 34. Sample area – Gradski zid-Dom na gradeznici: RED (existing public space) – 1. Playground A; 2. Playground B; 3. Pedestrian Pathway; 4. Pavement of Mixed-use Street; 5. Piazza GREEN (potential public space) – 1. Sports Playground

The inner city of Skopje has a distinctive urban fabric, based on strong contrast between left-over perimeter blocks and large planned residential buildings which form the so-called City Wall. This, Metabolist model of city planning, introduced to the urban environment of the city in the 1960s by Japanese architect Kenzo Tange, provided for peculiar urban blocks known as the "Golem Ring" (Large Ring). The blocks are formed by large linear residential buildings, usually facing the larger boulevards and several high-rise residential buildings towards the inner part of the block. Within the block itself, several service streets have been introduced, thus providing motorized access, while at the same time servicing the housing and commercial units inside. The negative space, ³⁰ however, is treated as open public space, used for playground corners, pedestrian streets, mixed use zones, parking, small urban parks, etc.

Over the years, this case-study block, Golem Ring – Dom na Gradeznici, has grown to accommodate several types of public spaces: playground corners, pedestrian streets and mixed-use zones set on the pavements facing the surrounding boulevards.

^{so} Negative space refers to spaces left-over after construction. In urban design, the public domain is considered negative space.



Figure 35. Gradski zid-Dom na Gradeznici: Public spaces Amenities Distribution

The location of the case-study block, Golem Ring — Dom na Gradeznici, on the fringes of the most inner urban core of the city, as well as the high permeability of the sample, mean that the flow of public space users (passive and active) is very dynamic. The users vary not just in age groups but also in their engagement in the space and the times they use the public space of the area. As a result, the perception of the space varies significantly from one group to another, raising questions regarding the adequacy of the implemented type of public space, the quality of physical space and the generated psychological effects on the entire urban environment.

In order to dissect these features of the public space within the case study urban block, several measuring points were established: two playgrounds, one pedestrian pathway and the pavement of a major boulevard with mixed-use built environment.

2.4.2.1. Playground corners

There are two playground corners in this urban block: one (Playground A) is located in the north-eastern inner part, while the other (Playground B) is located on the diagonally opposite, more secluded corner of the urban block. Hence, the exposure to users varies significantly. Both of the playgrounds share same amenities: Swings, Play Houses, Slides, Balancing and Seesaws.

Both of the playgrounds are protected by dense tree canopy, though the surrounding landscaping including available urban equipment, differs significantly. While Playground A is well maintained and open to the general public, Playground B, due to its location and difficulty of access, as well as obsolete amenities, attracts mainly local residents. In addition, Playground B is fenced with a high metal enclosure, which ultimately keeps the general public out, restricting its use solely to nearby residents.

Playground A





Figure 36: Playground A

Playground A offers 5 points of access, which in addition to the discreet railing fence makes it appear inviting and open. Playground B, on the other hand, has only 2 points of access, which are also obscured and away from the general flow of users, making it greatly underused.

This is also closely related to the types of users: active users who are fully engaged in the public space as opposed to passive users (pedestrians passing by).

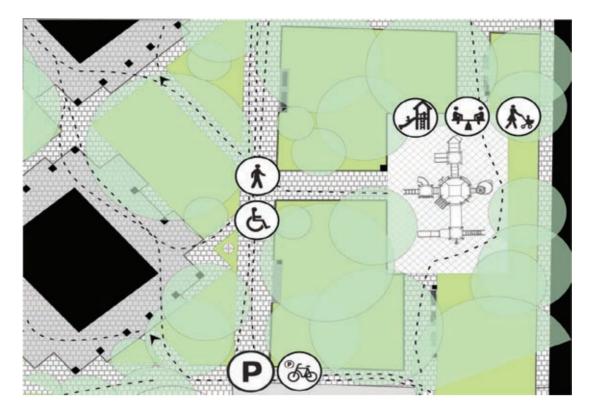


Figure 37: Playground A-Plan

Activity and Use	
ACTIVITIES:	Sitting on Benches, Walking, Walking with a Child, walking with a Pram, Standing, Talking/Listening, Sitting in Bars
PLAY:	Swinging, Balancing, Climbing, Jumping, Sliding
SERVICES:	Nearby Coffee-bar
TRADE:	n/a
CULTURAL AND SPORTS EVENTS	n/a
ARTISTIC PERFORMANCES:	n/a
OTHER ELEMENTS:	Traffic Signs, Notice Boards, Waste Bins and Containers, Street Lights, Benches.

Access and Flow	
EASILY ACCESSIBLE:	5 access points
MODERATE FLOW:	In and around the playground, due to public parking and main pedestrian access

Safety and Comfort	
VISIBILITY:	Very good within the inner part of the residential block
INSECURITY:	Good, though close to public parking with a low traffic load
PERCEPTION:	Isolated urban park with local playground

Playground B





Figure 38: Playground B

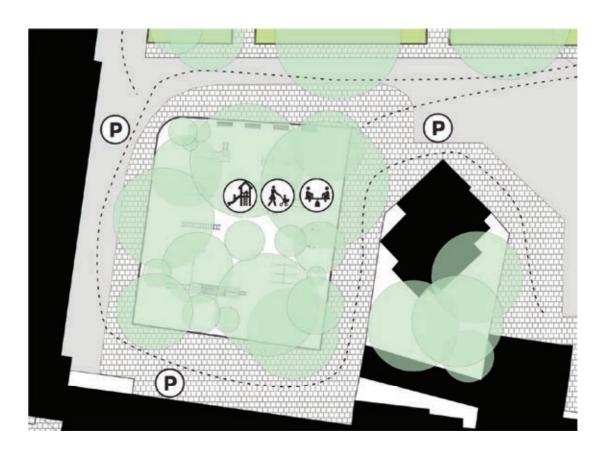


Figure 39: Playground B-Plan

Activity and Use	
ACTIVITIES:	Sitting on Benches, Walking with Children, Walking with Prams, Standing, Talking/Listening
PLAY:	Swinging, Balancing, Climbing, Jumping, Sliding
SERVICES:	n/a
TRADE:	n/a
CULTURAL AND SPORTS EVENTS	n/a
ARTISTIC PERFORMANCES:	n/a
OTHER ELEMENTS:	Notice Boards, Waste Bins and Containers, Benches.

Access and Flow	
EASILY ACCESSIBLE:	2 access points
LAW FLOW:	Only residents from nearby Buildings

Safety and Comfort	
VISIBILITY:	Isolated within the residential block, away from active traffic
INSECURITY:	Very good level of security, due to obscured access
PERCEPTION:	Local isolated playground

Compared one to another, Playgrounds A and B show very different data due to their location, design and points of access. Located in the vicinity of public parking as well as a major Pedestrian Pathway, Playground A has a very high level of passive users during business hours. These numbers are in stark contrast with Playground B, as this is mostly visited after business hours and in the late afternoon. Nevertheless, both of the playgrounds appear to be most attractive to the younger and older population as active users, leaving the age group 15–64 in relatively smaller numbers.

2.4.2.2. Pedestrian Pathway and Mixed-Use Zone Pavements – VMRO Street (Marx and Engels St.)³¹

Several pathways could be identified within this urban block, though most are integrated within inner service streets or have dead-ends. A solely pedestrian pathway runs in an east-west direction and provides alternative access inside, but also acts as a shortcut towards the inner centre of the city.

This is in stark contrast to the sidewalks of the main perimeter boulevards, which are packed with mixed-uses, mainly on the ground and first floor, thus "protecting" the block from non-residents and *Flâneur* types of visitors. In addition to this, the favourable street profiles of the perimeter boulevards, especially in regard to the sizable width of the sidewalks, contribute to the large number of users as opposed to the inner streets and pathways.

³¹ Marx and Engels Street is the old name that remains more familiar to local residents.





Figure 40: Mixed-Use Zone Sidewalk

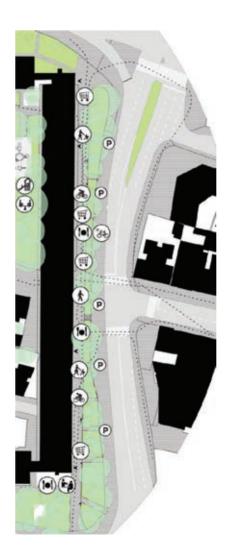


Figure 41: Mixed-Use Zone - Plan

The Mixed-Use Zone Pavements, unlike the Pedestrian Pathway, are protected by a line of mature Lime trees (*lat. Tilia Cordata*), with occasional evergreen coniferous trees. The grassed areas are usually decorated with shrubs and incidental groups of trees.

The flow measuring showed that both the Pathway and the Pavement of the mixed-use street tend to get busier in the early mornings and midday among working age groups and children attending school. Hence the differences in active and passive users, as most of the users do not remain longer than the time necessary to pass through. On the other hand, the age group 65+ appears to be most active during the so-called 'in between' time frames, right after early morning and late afternoon, composing the majority of active users.

Activity and Use	
ACTIVITIES:	Sitting on Benches, Walking, Standing, Talking/ Listening, Sitting in Pastry Shops, Shopping
PLAY:	n/a
SERVICES:	Parking, Public Transportation
TRADE:	Shops, Markets, Pastry Shops
CULTURAL AND SPORTS EVENTS	n/a
ARTISTIC PERFORMANCES:	n/a
OTHER ELEMENTS:	Traffic Signs, Notice Boards, Waste Bins and Containers, Street Lights, Benches

Access and Flow	
EASILY ACCESSIBLE:	open sidewalk
HIGH FLOW:	on the sidewalk

Safety and Comfort	
VISIBILITY:	There is no interrupted visibility
INSECURITY:	No
PERCEPTION:	A vibrant pavement on a prominent boulevard with an active mixed-use zone

2.4.2.3. Pedestrian Pathway – Old Gjuro Gjakovikj St.



Figure 42: Pedestrian Pathway – Old Gjuro Gjacovikj St.

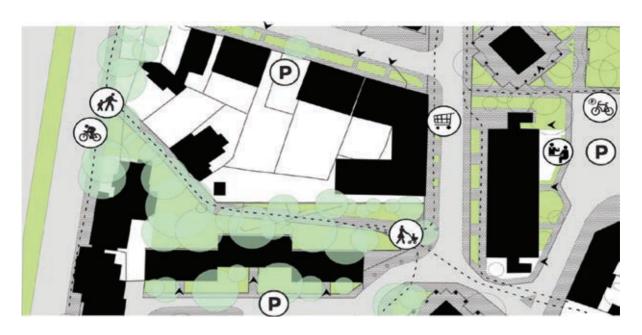


Figure 43: Pedestrian Pathway – Old Gjuro Gjacovikj St. – Plan

Activity and Use	
ACTIVITIES:	Walking with Children, Walking with Prams, Standing, Talking/Listening
PLAY:	n/a
SERVICES:	n/a
TRADE:	n/a
CULTURAL AND SPORTS EVENTS	n/a
ARTISTIC PERFORMANCES:	n/a
OTHER ELEMENTS:	Notice Boards, Fence, Street Lights

Access and Flow	
EASILY ACCESSIBLE:	2 access points
MODERATE FLOW:	pedestrian only

Safety and Comfort	
VISIBILITY:	Isolated within the residential block, away from active motorized traffic
INSECURITY:	No
PERCEPTION:	Short-cut to the inner city centre

Below are diagrams of analytical data related to activity, gender differentiation and age groups. The data has been given in total values, based on flow measures for the entire urban block.

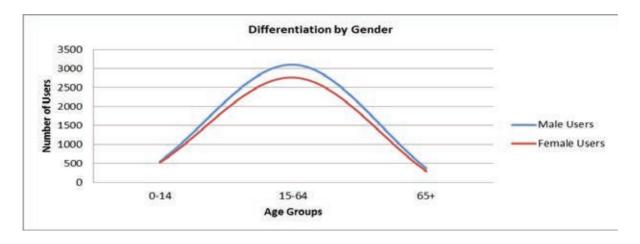


Figure 44: Diagram of Users by Age Groups

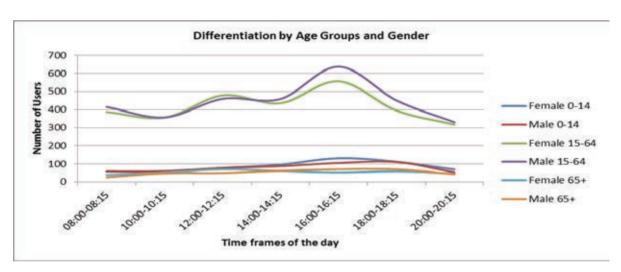


Figure 45: Diagram of Users by Age Groups and Gender

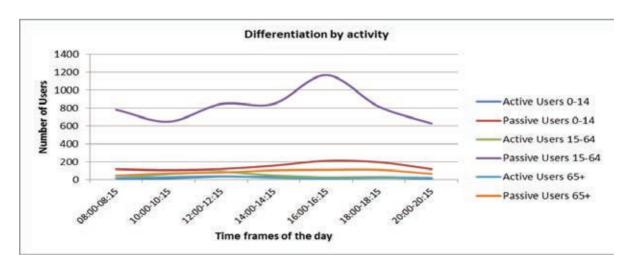


Figure 46: Diagram of Users by activity

Below are diagrams of analytical data related to activity, gender differentiation and age groups for working vs. rest days. The data has been given in total values, based on flow measures for the entire urban block.

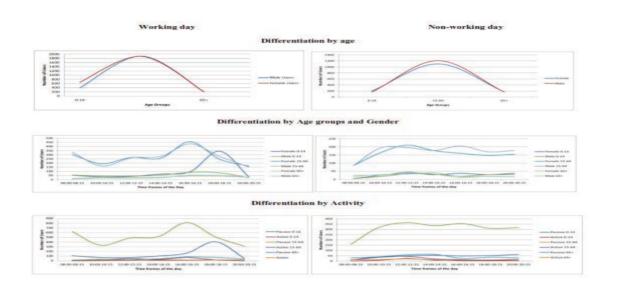


Figure 47: Diagram of Users by activity

The analysis of the case-study block Golem Ring — Dom na Gradeznici has shown that this is a highly planned inner city urban environment with different types of public spaces. While the perimeter streets provide mixed-use zones for the wider city core, the inner parts of the urban block are primarily designed for local residents. The share of users thus does not vary significantly on working and non-working days. In addition, the ratio of men and women remains moreorless constant over the same time frames of the day.

Contrary to what might be expected the activities of the users of the space do not differ significantly on working and non-working days. The number of people who actively use the public space, e.g. for walking, sitting, playing, strolling, etc., remains constant throughout the entire week, while the number of passive users who use the space for travelling from one point to another, decrease in proportion on weekends and holidays. This is a result of the block being in the vicinity of the central business district of the city, as well as due to an accumulation of major public and private institutions and amenities. In addition, the morphology of the urban block, as highly permeable and open to the nearby parts of the city, provides for a high level of interaction of non-residents with the public spaces within the case-study block. This proves the soundness of the initial idea of the planners in to provide this particular mixed-use morphology of physical structure and to create the productive relation to the public and semi-public space.

3. CONCLUSION AND RECOMMENDATIONS

This report has summarized the findings from piloting a methodology for measuring the Target 11.7.1 indicators developed by UN-HABITAT on the territory of the City of Skopje, for which two samples were selected in the Municipality of Centar. The research includes publicly available data, cadastre data, GIS-tools and field research.

The evidence collected during this pilot project demonstrates unequivocally the importance of "live" testing of Target 11.7 and its indicators. Despite the vast experience of the expert team in conducting research projects related to urban environments, gathering relevant and valid official data was a constant challenge throughout this pilot project.

Although the methodology proposed by UN-Habitat for measuring the SDG 11, Target 11.7 and 11.7.1. indicators is easily understandable, the methodology is challenging in areas where no harmonization with the SDGs has been undertaken.

Expectations that new tools such as GIS would enable easier and more accurate measurement proved mistaken, while conventional site analyses and field work provided relatively valid data and a basis for qualitative assessment.

3.1. Findings and Limitations

The findings and the limitations of the research are presented as main and as specific findings.

3.1.1. Main findings

The City of Skopje and other urban areas throughout the country have not yet aligned their urban development policies with the UN recommendations and do not follow the implementation of the Sustainable Development Goals adopted at the World Summit in New York 2015 and the Habitat III Declaration from Quito in 2015. The aims of SDG 11, to 'Make cities and human settlements inclusive, safe, resilient and sustainable', and of Target 11.7., to 'By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, especially for women and children, older persons and persons with disabilities', are not incorporated in any urban policy document regarding the provision, planning, designing, editing and managing of public spaces. This is mainly because most of the national strategic documents that guide the country's spatial and urban development were adopted before the announcement of the Global SDGs in 2015 and the process of alignment of the national and local documents is either at a very early stage or has not even begun. The Government, with the support of UN agencies, first launched this process in 2016.

The concept of public open space in the City of Skopje has not been clearly defined and is not subject to serious urban policy development, urban planning, regulation and maintenance, hence the need to list all the global and international documents that treat this case and define and prescribe the ways of securing that public space, as well as its maintenance and management. While it may seem that the document in the definition and exposure of global / international frameworks, as well as the typology of public spaces, is too extensive, the research team believes these should be included in a Public Space Profile to indicate clearly the context within which the research was undertaken.

3.1.2. Specific findings

The Survey, in the part of the GIS analysis, shows that the available information does not contain the necessary layers and does not comply with the global survey of public spaces. The specific conclusions are:

- There is no separation between public surfaces such as pavements and open car parks;
- There is lack of information about greenery, parks, squares, children's playgrounds and sports fields etc.;
- The GIS does not provide sufficient data and must be collected as field data;
- The level of the GIS is only a layer of the planned situation and does not provide information on the current situation.

The field analysis provided a layered insight into the state and reflected the real situation in the areas of the selected samples. It is notable that the first perception from a short stay in the given locations differs from the in-depth analysis. Namely, despite there being two completely different urban matrices, the results of the assessment of public spaces proved generally very similar. Major qualitative differences were found in terms of the representation of different types of public spaces and the usability of those spaces. The specific conclusions are:

- The presence and the vibrancy of the spaces is directly dependent on the surrounding services and functions;
- Locations in most of the selected points of interest are equipped with urban equipment, but this equipment is poorly distributed and leaves no room for free movement and use;
- Public spaces are dominated by cars, which are the main occupiers of space;
- Pedestrians and cyclists adapt to the resulting chaos and are forced to use the driving lanes, leading to an inversion in the use of spaces;
- Maintaining, collecting waste and parking facilities are the main obstacles to the quality of public space;
- The second sample, the City Wall Dom na Gradezhnici, is an example of the special commitment of the Municipality of Centar in the previous period for arranging public spaces with intensive landscaping and urban equipment, though these have suffered from neglect of maintenance over time.

3.1.3. Result from measuring Target 11.7 indicators in the samples

The obtained results from the measurement of the two samples in City of Skopje show that there is a high percentage of public spaces (Indicator 11.7.1.) as compared with results from other cities:

No.	Sample	% of public space
Sample 1	Debar maalo	37.46
Sample 2	City Wall – Dom na Gra- deznici	48.41

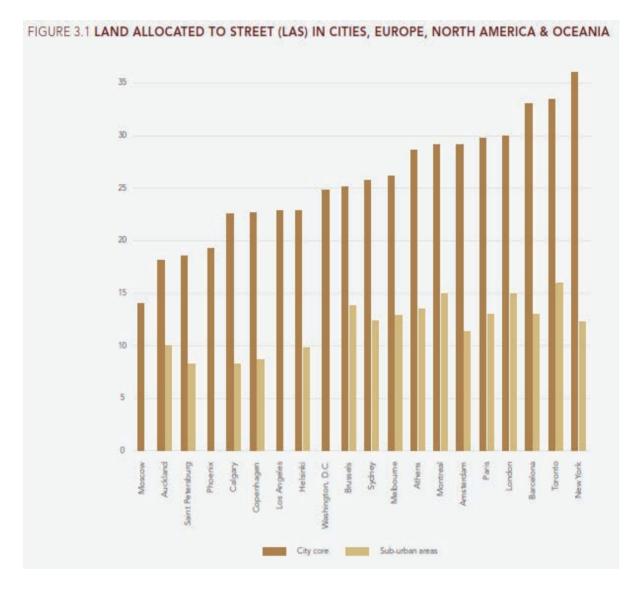


Figure 48: Data collected on land allocated to streets in twenty European, American and Oceanic cities. Source: UN-Habitat (2013) Streets as Public Spaces and Drivers of Urban Prosperity (http://unhabitat.org/streets-as-public-spaces-and-drivers-of-urban-prosperity).

The observed limitations in comparing the results relate to the vagueness of the distinction between streets and other public spaces.

In Sample 1– Debar Maalo neighbourhood, due to the lack of various types of public space, the largest percentage of the public space is street area. However, in this sample there is no other type of public space, which decreases the quality of this location. The Sample result of 37.46% is higher than the expected 30%.

By contrast, in Sample 2- City Wall - Dom na Gradeznici there is no clear distinction between the streets and the space owned by the state. The state-owned land is not divided into land with children's playgrounds and other types of public space, so the comparison can only be taken as the total volume of public space. The resulting percentage of public space (48.41%,) however, is higher than the recommended percentage (40%).

3.2. Recommendations

Considering that public spaces are not a priority for urban policy, planning, regulation and management, neither at state level or local level, the recommendations are as follows:

- The country should follow global policy and localize the declared UN policy and incorporate the Global Sustainable Development Goals as soon as possible, particularly SDG 11 ('Make inclusive, safe, resilient and sustainable cities') and Target 11.7. ('By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, especially for women and children, older persons and persons with disabilities'). For this purpose, the following should be considered:
- Incorporating these goals in the strategies for spatial and urban development;
- Compliance with legislation in the field of spatial and urban planning, as well as landscaping and communal activities (accepting the typology of open public spaces; incorporating and maintaining public spaces in annual programmes for communal activities, etc.)

At local level, the following considerations should be taken into account:

- The need for sustainable development strategies for cities (sustainable cities framework);
- The preparation of studies for mapping the existing situation, assessing the needs and possibilities and providing recommendations for future development in relation to public spaces;
- Developing public space strategies for cities, where the issue of public spaces can be be more specifically addressed, including their planning, arrangement and management;
- Establishing mechanisms for monitoring the situation, communicating with citizens, informing and taking actions in order to provide better public spaces.
- Using modern IT tools for improving the conditions for mapping and analysing, preparing studies, monitoring the situation, gathering information and managing public spaces.
- Training and building central and local capacities to meet the increased need for care for public spaces and the provision of quality urban life;
- Providing opportunities for greater citizen involvement in decision-making and the creation of sustainable urban policies, making right use of citizens' capacities.

Finally, it is highly recommended that the involvement of the academic community be supported and promoted as the most prominent advocate of advanced ideas in urban planning policies and city management and as proven disseminators of knowledge in the area of sustainable urban development, as well as serving as incubators for future dedicated experts and scientists.

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