

THE SKOPJE CONTACT ZONE – A KEY TO A SUSTAINABLE FUTURE OF THE CITY

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ABSTRACT

The city of Skopje is constantly expanding its territory, mostly occupying agricultural land along the city perimeter. This is a result of uncontrolled development in the contact zone, which actually increases the built city territory, albeit outside its administrative borders. The policy of containing city expansion, advocated as basis of its future sustainable development, will not provide the desired results, unless it includes its contact zone in the planning process.

The research of the Skopje contact zone shows that the settlements in this area often undergo uncontrolled development processes. The sprawl is most common along the main thoroughfares, where the expansion of villages creates a continuous urbanized residential area in the 5km buffer zone off Skopje borders. Although some of these villages are detected as suitable for higher standard single-family housing, which cannot be provided in the city, they are not always accompanied by adequate infrastructure. Apart from the planned technological-industrial development zones, spontaneously created production facilities are also located in this area. These processes lead to deterioration of the detected spatial qualities of the city contact zone and can irreversibly harm its potential for future sustainable development.

The conducted research detects the absence of a clear policy for integral development of the city and its surrounding area as an indivisible whole. Contributing factors are the missing regional plan, the local government organization, and the divided powers between the city of Skopje and its ten municipalities, as independent local government units.

The research paper proposes a qualitatively different approach to the planning and organization of the contact zone and the city, providing simultaneous and integral treatment of their spatial phenomena. The result is a list of activities that address the set goals, responsible authorities, and the time frame for their execution.

KEYWORDS _ *contact zone, suburban spatial morphology, inclusive planning policy*

INTRODUCTION

The rapid and intensive development of cities induces complex changes of the settlements in the city outer ring. These processes are most noticeable in the vicinity of large cities, where the impacts are manifested throughout a series of changes in the demographic, functional and physical development of the settlements. The processes of constant transformation of cities result in creating new spatial relations between the city and its immediate surroundings - the contact zone, which conditions the need for planned articulation and implementation of urban development plans.

The complexity and importance of Skopje as the dominant development centre of the country with the highest concentration of population and activities, indicates the necessity of a new long-term concept of the spatial development of the city. As part of the General Urban Plan of the City of Skopje (2022-2032), a study *The Skopje City Contact Zone* (Spatial Planning Agency, 2022) was developed, where the mutual influence of the city and its surrounding area was analyzed. The uncontrolled development along the city border, determined by the Skopje General Urban Plan, occupying its immediate surroundings, actually increases the built city territory, albeit outside its administrative borders. The policy of containing city expansion, advocated as a basis of its future sustainable development, will not provide the desired results, unless it includes its contact zone in the planning process.

For the purposes of this research, the contact zone of Skopje has been analyzed in terms of its weaknesses, but also its attractiveness in relation to the city, representing a space where some of the city's functions can find their place. Through an integral treatment of spatial phenomena this research aims to establish a qualitatively-different approach in the planning and organization of the contact zone as a whole with the city, as a humane environment that meets the needs of its population.

SETTLEMENTS IN THE CONTACT ZONE

The city within its boundaries - *administrative city*, symbiotically connected to its surroundings, forms a unique functional entity - *formal city*. The Skopje contact zone includes settlements and suburban villages that have a considerable daily migration frequency. Through reviewing the processes of physical transformation of the city and its surroundings, an overview of relevant planning documents for Skopje was conducted, analyzing the master and general urban plans for Skopje from the post-earthquake period, developed after the year of 1963. The analyses show that the decreasing territory within the scope of the master plan for Skopje from 1965 (12500ha) to the scope of the General urban plan for Skopje from 2012 (8790ha), embodies the area of the actual city's contact zone.

Table 1: Planning documents overview - Skopje city planned total area (in hectares)

Plan Name	Skopje Master Plan 1965	Skopje Master Plan 1985	General Urban Plan 2002	General Urban Plan 2012	New GUP proposal 2022
Area (ha)	12.500	7.086,6	8.464,08	8.790,04	8.790,04

The Master Plan for Skopje city from 1965, designed for post-earthquake Skopje, was a strategic document with elements of spatial planning. It incorporated the current trends for the expansive spread of cities in the future, mass mobility and motorization, as well as upgraded living standards. The following master plan from 1985 revises the city boundaries and excludes part of the agricultural land that is again intended for agriculture. All of the following planning documents for Skopje are designed for a relatively compact urban structure of the administrative city, without significantly changing its scope.

According to the position of settlements in the contact zone, the intensity of building areas and infrastructural equipment, transport and communication, as well as the population size of the settlements and the frequency of daily migrations, *two belts* of the contact zone can be defined. The first belt embeds the *adjacent settlements* close to the city administrative border which are closely connected to the city. These villages are intensively developed along the roads and spread radially from the city to the surrounding area. Some of these villages are municipality seats that have urban characteristics and even though they lack public services, due to their vicinity and demographic size, they directly affect the dimensioning of many city structures. The second belt of the contact zone incorporates clusters of *suburban settlements* that are situated farther in the city outer ring and are characterized with their own residential independence and physiognomy. The basic criteria that define the second belt of the contact zone are: the connection of the settlements to the local road network, the frequency of public transport, as well as the number and participation of the population in the daily migrations. These suburban settlements form 14 agglomeration units in the contact zone.

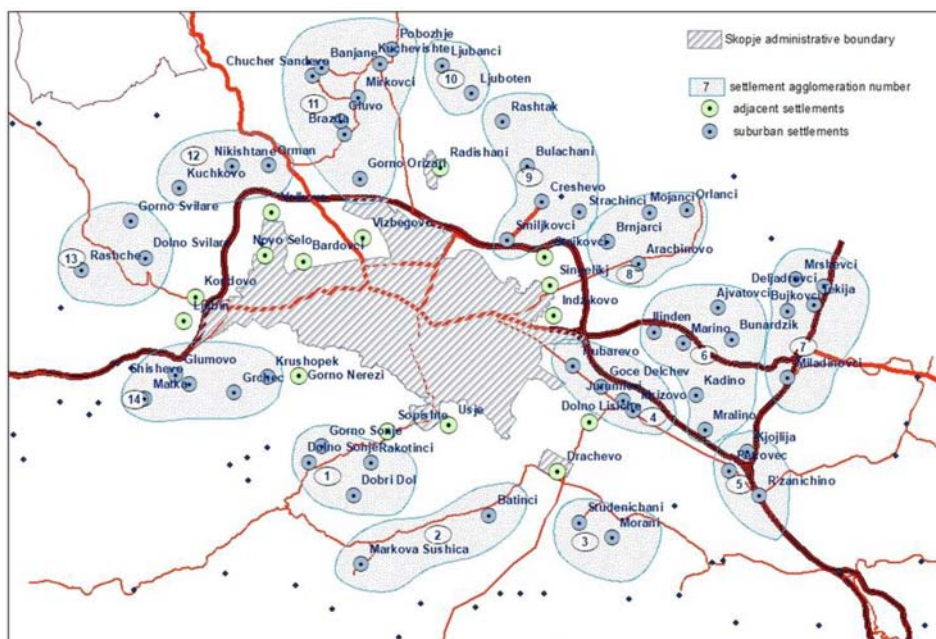


Figure 1: Adjacent settlements and suburban settlement agglomerations in the first and second belt in the contact zone. Source: *Skopje city contact zone – Study for GUP Skopje 2022-2032*, SPA, Skopje (2022)

POPULATION AND TERRITORIAL ORGANIZATION OF THE CONTACT ZONE

There are two types of settlements determined with the Law of territorial organization of the local self-government in North Macedonia - town (city) and village. The Skopje Region is composed of 17 municipalities, ten of them form Skopje city. According to the Census data from 2021, there are 607.007 inhabitants living in the Skopje Region, of which cca 30% live in the rural area (rural population) and cca 70% live in the city of Skopje (urban population). The rural population in the Skopje Region is distributed so that 103.962 inhabitants live in the rural area on the territory of the ten city municipalities which form the Skopje city, and 80,505 inhabitants live in the remaining seven municipalities based in the villages. Out of 526.502 inhabitants living in the ten city municipalities, 19.7% live in rural areas and 80.3% live in the city of Skopje. (Markovski and Dimitrov, 2022).

LIMITATIONS AND COLLISIONS OF THE DEVELOPMENT AND ORGANIZATION OF THE CONTACT ZONE

"With the world's urban population having crossed the fifty per cent threshold of global population, it has become increasingly clear that the future is urban. (...) Global challenges such as climate change and resource depletion affect different areas in various ways and require new and innovative responses." (UN Human Settlements Programme, 2015)

The overview of the spatial organization of the Skopje contact zone indicates two planning problems that stand out in particular, the first one is the great influence of the city to the extent that it neutralizes the possible connections in the network of settlements, and secondly, the unquestionably strong connection between the development of the city itself and the processes taking place in its surroundings. The priority city interests dictate the actual development and planning concepts which rely on the dominance of Skopje, while the surrounding rural area is treated as a potential for the future city expansion and development (Spatial Planning Agency, 2012). The limitations and imbalances in the development of the contact area in general arise from the unplanned urban sprawl over undeveloped land which hardly achieves the necessary standards.

One of the biggest problems for the master plan implementation and achievement of the urban planning goals comes from the systemic solution of divided powers between the City of Skopje and its ten municipalities as independent local government units. The City of Skopje adopts a general urban plan of the city, while the urban development plans, urban projects and urban plans for the settlements in the contact zone are the responsibility of the municipalities. Thus, the City of Skopje does not have jurisdiction over the territory that is immediately outside its administrative border, although the processes that take place in this area have a significant impact on the city. The planning document that should govern the entire area is the Spatial Plan of the Skopje Region. Yet, it was adopted by the Assembly of the Republic of Macedonia in 2010 only in its draft phase, which results in inconsistent planning solutions in respect to the Skopje general urban plan and the plans for the settlements in the contact zone, which are under the jurisdiction of the municipalities.

OVERVIEW AND ASSESSMENT OF THE CONTACT ZONE DEVELOPMENT

Apart from settlements and urbanized areas, the contact zone of the city incorporates open spaces and unbuilt areas such as agricultural areas, forests, water bodies, pastures, meadows and other greenfield, natural habitats, as well as degraded and derelict spaces. The land use of these spaces is recorded by the Real-estate State Cadaster. These unbuilt spaces are vulnerable to uncontrolled urban expansion and illegal construction of buildings for various purposes due to their position. Furthermore, these spaces are very often converted into construction land by different types of planning documents. This practically expands the built-up area along the city perimeter, without officially changing the scope of the general urban plan.

SPATIAL PLANNING CONDITIONS

The spatial planning conditions are extracts from the highest planning document - Spatial Plan of the Republic of Macedonia that state the detailed conditions for preparation of planning documents developed for the areas outside the scope of urban plans. The connection of the city with the contact zone, in scope, dynamics and structure can be illustrated through the number, purpose and location of the issued planning conditions. The summary data on the total number and type of planning conditions for the period 2004-2020, are presented in the following diagram (Fig. 2). Apart from the central municipalities of Centar and Chair in Skopje, all other municipalities have territories that go out of the city's administrative border. These territories are characterized by the heterogeneity of the land use drafted in the planning documents developed for these areas.

The expansion over unbuilt areas is most common among the villages, so their scope expands with every new plan. Some of these villages are detected as suitable for higher standard single-family housing which cannot be provided in the city, but they are not always accompanied by adequate infrastructure. According to the data from the three consecutive censuses in North Macedonia, the population in the rural area of the Skopje region municipalities has recorded a constant increase.

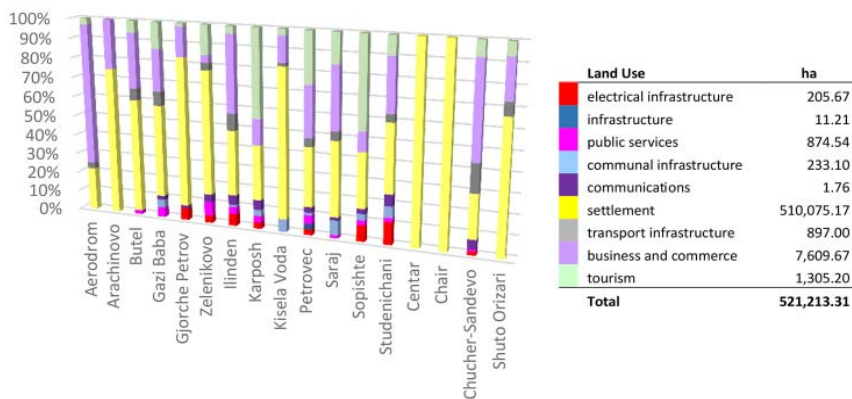


Figure 2: Total area per land use and its distribution in the municipalities based on issued spatial planning conditions. Source: Skopje city contact zone – Study for GUP Skopje 2022-2032, SPA, Skopje (2022)

The current trends direct towards dislocating the economic /business and commerce activities from the city and placing them in the first belt of the contact zone along the roads, usually occupying productive agricultural land. The largest occupation of agricultural land is recorded in the municipality of Ilinden, firstly with the development of the technological-industrial zone “TIRZ Skopje”, followed by the municipality of Butel, where the Vizbegovo industrial zone is intensively growing through business and commerce activities.

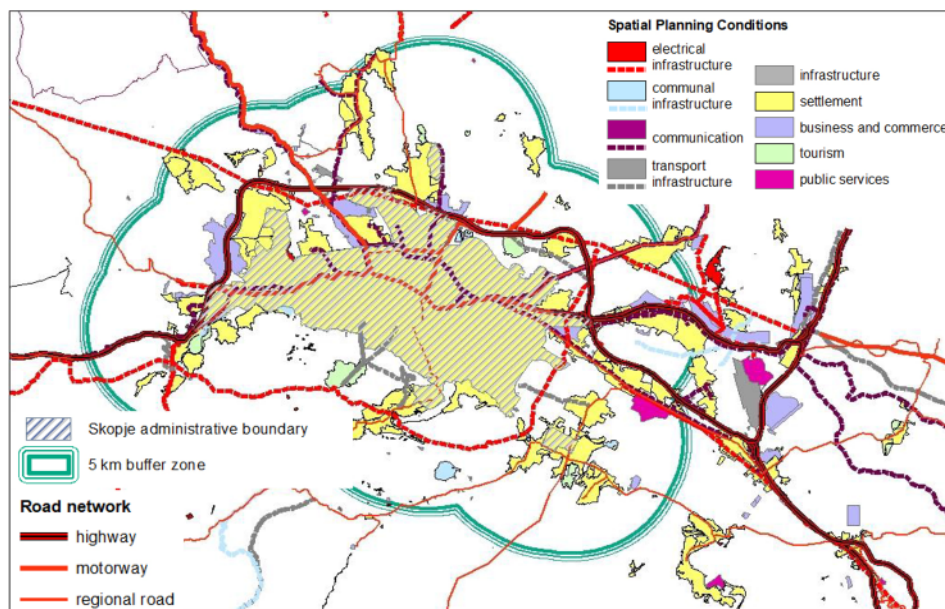


Figure 3: Land use planning in a 5km buffer belt in the contact zone of Skopje. Source: Skopje city contact zone – Study for GUP Skopje 2022-2032, Spatial Planning Agency, Skopje (2022)

SWOT ANALYSIS

The relationship between the contact zone and the city was analyzed by distinguishing the positive and negative aspects. Addressing the threats such as degradation or transformation of the high-quality agricultural land into land for urban development and detecting other weaknesses, ought to help in finding adequate solutions that will turn weaknesses into opportunities for harmonized development.

Table 3: SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> * Established urban functions that meet citizen's needs; * The contact zone is well connected by transport; * Services and urban functions are performed within the contact zone, outside the city. 	<ul style="list-style-type: none"> * The City has no administrative instruments to influence the development of the contact zone; * Discordancy between the planning solutions of the Skopje Master Plan and the Rural development plans; * Inadequate communal design of the rural settlements.
Opportunities	Threats
<ul style="list-style-type: none"> * Adopting a Spatial plan for the Skopje Region; * Efficient use of high-quality agricultural land in Skopje Valley by applying new technologies in agriculture; * Dispersion of functions and "activating" the contact zone in the development process. 	<ul style="list-style-type: none"> * Relocating the economy/industry (including pollution) out of the city and into the contact zone; * Transforming high-quality agricultural land into land for urban development.

LAND USE AND SPATIAL DEVELOPMENT GOALS

The current trends in Europe, but also worldwide, indicate that the development of the settlements has a great influence in the overall efficiency of the economic development of the countries, through estimating the construction, operational and maintenance costs, including the infrastructure. The dispersion of the city functions and creating the so called "urban octopuses" increase the city's maintenance costs of transport and communal infrastructure and of other infrastructural networks. This emphasizes the phenomenon that spatially dispersed communities increase the daily migrations and consequently the overall living costs. Hence the following goals for land use and spatial development in the contact zone support *the compact city* concept and aim toward creating functional and sustainable living space:

- *Goal 1* - providing harmonized development with complementary contents and functions in the Skopje contact zone;
- *Goal 2* - communication improvement of the city with the contact zone;
- *Goal 3* - preservation of high-quality agricultural land.

PROJECTION AND MONITORING OF FUTURE DEVELOPMENT

The "New Urban Agenda" adopted by the United Nations General Assembly (A/RES/71/256*), directs towards rethinking of the way we plan, finance and manage cities and towns, recognizing the crucial importance of sustainable urban and spatial development in order to achieve sustainable development and prosperity for all. This also implies support for effective, innovative and sustainable funding frameworks and instruments that enable strengthening of municipal finances and local fiscal systems in order to create, maintain and share the value produced by the sustainable development of the city in an inclusive manner.

The integrality and comprehensiveness in the planning of the city and its contact zone, as well as

the application of the “problem approach” in the planning processes, represent a potential that can provide optimal solutions only under certain circumstances. This potential will turn into a real change only by including the political factor, which should enable the use of alternative solutions based on contemporary planning approaches.

The development and spatial distribution in the contact zone should be based on:

- Planned and contained physical development of the city and the settlements in the contact zone in order to protect the highly productive agricultural land in Skopje Valley;
- Organizing and focusing the production capacities in working areas on non-productive lands with effective infrastructure;
- Protection, organization and planning of suburban green areas, sports-recreational zones, weekend housing and tourist sites and their integration in the development of the local settlements and in meeting the periodic needs of the city's inhabitants;
- Establishing legislative protection for highly productive agricultural land, water sources, forests, recreational sites, cultural heritage and natural heritage sites.

Skopje with the contact zone represents a functional entity therefore, according to the Development Planning Program for GUP Skopje 2022-2032, the implementation of GUP Skopje 2022-2032 (Faculty of Architecture, 2022) will be monitored through a list of indicators which cover primarily the area within the borders defined in the plan, but also the rural areas of the ten Skopje municipalities (Spatial Planning Agency, 2022). The wide list of data ranging from demographic, socio-economic, spatial to planning aspects, including types of planning documents, coverage area, land use, etc. are aggregated on two major levels, one being the area covered by GUP and the other, the entire area which is part of Skopje municipalities, but is not covered by the plan. It is our opinion that the latter area, within a five-kilometer buffer belt off the plan borders should include a separate level of data aggregation. In this way, the analysis of these specific indicators will show precisely the processes taking place in the contact zone and the need to rectify the interconnections between the city and its immediate surroundings.

ACTIVITIES AND TIME-FRAME FOR ACHIEVING THE SET GOALS

The set goals for organization and land use in the contact zone could be accomplished through activities with broad and comprehensive perception of the space. It is essential to develop the Spatial Plan of Skopje Region and engage The Center for Development of Skopje Planning Region¹, which unites all 17 municipalities of the region. The final adoption of the Spatial Plan of Skopje Region is necessary so that the region can be developed in accordance with a plan from a higher level, regardless of the competences of the City of Skopje and the other local authorities.

Table 4: Activities and time-frame for achieving the set goals

	Authority	Activity	Gain	Time-frame
1	Assembly of the Republic of North Macedonia; Ministry of environment and spatial planning	Goal 1 – Adopting a Spatial plan for the Skopje Region	A Plan which perceives the region integrally, respects the population, settlements and functions specificities and offers complementary contents	mid-term
2	Local self-government, Institutions	Goal 1 and Goal 2 – Qualitative and quantitative improvement of infrastructure systems	Communication improvement with the contact zone; Improving the collaboration between LSG and relevant institutions	mid-term

¹ <https://skopjeregion.gov.mk/>

3	Local self-government, Institutions	Goal 1 and Goal 3 – Development of zones in order to provide functions dispersed in the contact zone	Improving the availability and quality of urban functions in the contact zone	mid-term
4	Local self-government	Goal 1 and Goal 2 – Designing urban plans and projects for the settlements in the contact zone	Planned and controlled settlement development; Prevention of proliferation - urban sprawl	mid-term

CONCLUSION

The city of Skopje and its contact zone are functionally and spatially intertwined and should be perceived as a compact space in the planning process, where all activities of the inhabitants of the city and settlements in the contact zone take place. The efficiency of the development of this area, where many city functions are dispersed, can be perceived through the costs of construction, operation, maintenance and infrastructural connection of the amenities of the city and the contact zone. The functioning of a spatially-dispersed community increases the volume of daily migrations and, accordingly, the cost of living, but it also has a negative impact on the quality of the agricultural land in the Skopje Valley.

The conducted research detects the absence of a clear policy for integral development of the city and its surrounding area as an indivisible whole. Contributing factors are the missing Spatial plan for Skopje Region, the local government organization, and the divided powers between the City of Skopje and its ten municipalities. The priority solution offered to overcome the problems is the adoption of the Spatial plan for Skopje Region, a document binding for all authorities, thus the most suitable planning document that would govern the entire area.

The research paper proposes a qualitatively different approach to the planning and organization of the contact zone and the city, providing simultaneous and integral treatment of their spatial phenomena. The result is a list of activities that address the set goals, responsible authorities, and the time frame for their execution.

The process of system transformations in the country requires different planning responses to the spatial needs, therefore, planning solutions should respond in an innovative way and with a different sensibility to the inherited spatial challenges of the city and its contact zone. Moreover, this could be achieved by applying a dynamic, flexible and sustainable model, which will simultaneously adapt to the intensity of rapid global changes. The urban development of Skopje and its vicinity will be based on the utilization of the potential of the undeveloped area, as well as rehabilitation of the built area, with minimal occupation of the valuable, nonrenewable land resource. This approach will contribute to development, creation and organization of a city structure with a unique urban metabolism that will be sociologically acceptable, economically justified and technically sustainable.

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