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SPECIFICS AND PROBLEMS IN THE SPATIAL DEVELOPMENT OF STARA ZAGORA MUNICIPALITY

ABSTRACT

This article is dedicated to the spatial development model of Stara Zagora municipality. The focus is on planning and managing the territory of the municipality. The process is presented in a complex aspect, which is tied to spatial development. The major purpose of the research is thorough interdisciplinary approach to identify and analyze the specifics and problems of the Stara Zagora municipality spatial development. The authors explore the territorial development of Stara Zagora, on the one hand, and on the other, the formation of specific patterns of space utilization and the territory's arrangement. Also the research brings out the importance of the Gross Domestic Product per person of the population in an area of Stara Zagora as a measure of the average level of the population. The authors prove the necessity for significantly increasing the average level of GDP per person for the region. This positive trend is a function of both the high GDP that produces the district and the population partly due to these high differences.

KEYWORDS: municipality, spatial development, urban development, Stara Zagora

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INTRODUCTION

According to the physical-geographical zoning of Bulgaria, the municipality of Stara Zagora is in the Srednogorsk region. It covers the eastern part of the Upper Thracian lowland, mainly the Sazliyka River basin. The topographical characteristic of the area is a slight slope of the southeast. The municipality of Stara Zagora occupies a territory of 1,019.4 km² and is in the south-central part of Bulgaria, on the southern slopes of Sarnena Sredna Gora in Starozagorsko Pole. The city has an important nature-

geographical and economic significance for the region and the country. On the border between the two categories and in a central position is the city of Stara Zagora, unifying the functions of habitation, service, recreation, production, as well as communication-transport role. Production and logistics functions occupy the southern and eastern parts of the city and coincide with the road and rail routes to the cities of Sliven, Yambol, and Dimitrovgrad. The airport complex is located south of the municipal complex center. The villages of Stara Zagora municipality can be grouped into two main types, the first being the villages of The Starozagorsk field, providing conditions for the development mainly of the functions of habitation and agriculture, and the second is the villages of Sarnena middle forest. The state of the municipality's economy is

determined by many diverse factors and character factors that influence development, condition, and the opportunities facing the municipality. Such are macroeconomic framework, historical development, natural resources, foreign investment, demographic processes, and others. Thus, the purpose of this article is to highlight the spatial development of the municipality and at the same time to propose solutions and assumptions for improving transport connectivity within the municipality. The methodology is based on the accumulation of statistical data, reference to expert assessment, and analysis of spatial transport processes in the municipality of Stara Zagora. The article aims to achieve results that bring to the fore the provision of the necessary strategic, functional, and spatial coordination for the effective use of this potential for the development of the city of Stara Zagora. They need to be done interventions in the municipal territory, thus improving the conditions for life and business of the local community.

1. Literature review

Contemporary political, economic, social, and environmental changes are increasingly affecting the development of individual territories and cities. Cities and agglomerations are the main components of each territory and have their place and role in the national economy and the development of regions. For cities to be sufficiently economically and socially significant, and thus to sustain the adjacent nearby and more distant territory, it is necessary to create favorable conditions for living, working, and leisure. These services are linked to local government policies for the spatial development of cities and the achievement of territorial, economic, and environmental sustainability in the face of contemporary challenges in the face of evolving climate change (Wamsler, Brink..., 2013; Marcuse, Connolly, 2009). In this process, spatial planning of urban and extra-urban areas within municipalities plays a fundamental role (Palermo, Ponzini, 2010). An important part of urban planning activities and the approach to space and territory is to be rationally used (Graham, Healey, 1999; Petrov, 2015). In this regard, in the scientific literature, we can find good practices for urban development planning and management. Such are the examples of Oslo and Romanian cities (Andersen, Skrede, 2017; Petrișor, 2010). In the first case, the authors explore approaches to apply theoretical models in practice to make the capital Oslo a sustainable city. The second case reviews and analyses the accumulated urban planning theory and practice to support the spatial and sustainable development of Romanian cities. In this regard, urban development is largely dependent on state policies and attitudes towards local self-government and the capacity of cities to resist emerging crises of different natures (Brunetta, Caldarice, 2019). The regional community and the ability to self-organize play an important role in capacity building and urban development (Tsonkov, 2019; Boonstra, Boelens, 2011). Planning the urban territory for sustainable spatial development implies taking actions in several directions - environment and sustainable urban environment, health, smart management of urban systems, construction of green infrastructure, accessibility, and sustainable and environmentally friendly urban transport. In this regard, we find several studies that focus on the research of planning smart and sustainable cities (Sikora-Fernandez, Stawasz, 2016; Liu, Wu, 2023; Ablyazov, Baizakov, 2022). The concept of building smart cities is also directly related to their sustainability. Here, the development of ecological infrastructure and the protection of the natural environment plays an important role (Duvall, Lennon, Scott, 2018; Scott, Lennon, Haase, 2016). Sustainable and quality urban environments are not only achieved through infrastructure and cleanliness but also by stimulating and promoting healthy urban planning (Lowe, Whitzman, Giles-Corti, 2018). Finally, urban transport planning is also a significant activity to achieve a supportive environment and spatial urban development of municipalities (Black, 2018).

2. Methodology

The research methodology is based on complexity in the choice and use of scientific approaches and methods. The major purpose of the research is thorough interdisciplinary approach to identify and analyze the specifics and problems of the Stara Zagora municipality spatial development. The authors use territorial, geographical, statistical, and network approaches. The main methods used to analyze the development of Stara Zagora municipality are statistical, descriptive, territorial, network, and PEST analysis. As a modern analytical tool, PEST analysis implies the implementation of analysis and evaluation of the object of consideration on parameters such as social, technological, economic, and political. In practice, municipalities such as Stara Zagora have their peculiarities in regional development, where the development of local urban public transport, which has an impact on the entire regional economy, is of structural importance. It is important to underline that the main modes of transport are road and rail within the municipality of Stara Zagora. For the time being, the airport is preserved. This PEST analysis is intended to show the importance of those processes and factors that can help to optimize public transport as a factor to be more efficient, faster, more flexible, and more reliable within the municipality of Stara Zagora.

3. Results

Approaches to spatial population development require a spatial assessment of the state of settlements in a particular territorial community. This is necessitated by the need to derive the resulting regularities in the state of the population, its social capital, and a more qualitative assessment of employment and unemployment levels, as these can be examined at different levels, namely individual, regional, and local. Regional development is a set of legislative and administrative actions by public authorities to overcome regional disparities in the country. It is also defined as an organized activity of society aimed at the development of the well-being of economic agents based on an increase in the efficiency of social production and as a process of interaction between natural, geographical, economic, social, and historical values and resources available in a region. The dominance of one or other of these factors determines regional differences. In this sense, the following main groups of factors are relevant: (a) natural environment, geographical location, and natural resources; (b) demographic processes. This factor is examined through the indicators: population size, population density, the relative share of the urban and rural population, natural and mechanical population movement, etc.; c) qualitative characteristics of the region's population: GDP per capita, GVA, average household income and income per capita, average annual wage, number of kindergartens, number of schools, number of students and number of hospitals. The main reason for regional differences is the concentration of economic activity in regions that have advantages leading to lower production costs. These are natural factors and factors related to human capital and the institutional environment. Most regions lacking these factors lag even with strong state intervention.

4. Discussion

4.1. Characteristics of the socio-economic profile of the municipality.

The town of Stara Zagora is the center of the district and municipality of the same name. As a district center, it is well located with no serious topographical barriers and, therefore, no problematic aspects have been identified regarding the administrative and service functions of the district center. In practice, Stara Zagora is an engine of the regional economy and a balancer in regional development for the redistribution of resources and mitigating disparities in the

territory of the municipality and the district. In terms of social services, health, education, demographic structure, and infrastructure, the necessary municipal capacity has been created. This predetermines the central character of Stara Zagora municipality not only for other municipalities in the district but also an important socio-economic center for the whole of South-Eastern Bulgaria. In the field of the regional economy, labor market, and environmental situation, Stara Zagora municipality is primarily connected to Radnevo and Galabovo municipalities. The local economy is strongly linked to the available mineral resources. These are mainly lignite deposits. Coal mining and power generation are developed in the municipality through their processing. According to the data of the municipality of Galabovo, the areas for extraction of minerals occupy 17.6% of the total area of the municipality. Mining and power generation, electricity transmission, and energy repair are identified as the leading economic sectors and activities. The main enterprises operating in these areas are "Mini Maritsa East" AD, "Brickel" EAD, "Kontur Global" - TPP "Kontur Global Maritsa East 3", "Energoremont - Galabovo" AD, AES BULGARIA - TPP "AES - Galabovo". Other sectors with active development are construction and animal husbandry. This has a direct impact on the employment structure, employment, and unemployment rates. In strategic terms, according to National Statistical Institute (NSI) data, Table 1 shows a decrease in the demographic potential of the population in the district. In 2016, the population was 321,377; at the end of 2020, it amounts to 311,400. Thus, in the last 5 years alone, the population of the district has decreased by 9,977 people.

Table 1. Overall regional profile of the administrative district of Stara Zagora for the period 2016-2021

STARA ZAGORA (SZR)						
Topics	Indicators	Years				
		2016	2017	2018	2019	2020
Demographic Statistics	The population as of 31.12. - total (number)	321 377	319 067	316 356	313 396	311 400
	The population as of 31.12. - men (number)	155 975	154 706	153 264	151 611	150 524
	The population as of 31.12. - women (number)	165 402	164 361	163 092	161 785	160 876
	Natural growth rate (per 1 000 population) - ‰	-6.7	-7.0	-7.3	-7.6	-10.1
	Infant mortality rate (per 1 000 live births) - ‰	12.2	9.5	6.5	10.4	5.0
	Mortality rate - total (per 1 000 population) – ‰	16.1	16.6	16.5	16.5	19.0
	Mortality rate - males (per 1 000 population) – ‰	17.5	17.8	17.6	17.7	20.7
	Mortality rate - women (per 1 000 population) – ‰	14.8	15.6	15.5	15.4	17.4

Source: NSI

Another important indicator is the number of employed persons under an employment relationship, in 2016 it was 104 411 persons, but at the end of 2020, it drops to 98 735 persons. The picture is similar in terms of the relative share of the population aged between 25 and 64 with secondary education (%), which was 66.5% in 2016 and falls to 62% by the end of 2020. There has been some increase in the number of graduates over the period, rising from 18.6 in 2016 to 21.6 by the end of 2020. In contrast, young people who remain with primary education

from 14.9 in 2016 reach 16.4 by the end of 2020. The district sees some slowdown in the social, health, and education sectors.

The positive changes are related to an increase in the share of investments from 920 971.3 thousand euros in 2016 to 971 733.8 thousand euros by 31.12.2020. In terms of transport, there are no changes, there is some improvement in the internet network, as well as an increase in the share of new buildings and housing in the district. In practice, the main driver of the development of the regional economy is the municipality of Stara Zagora. This emerges as a major problem due to the emerging different rates of socio-economic development of the municipalities of Stara Zagora District. In this direction, it is very important to consider this peculiarity in regional economic development, because Stara Zagora Municipality should look for ways to increase its gravitational potential, including transport accessibility and assistance to less developed municipalities of the district. Support is needed because the analysis shows that according to the National Statistical Institute data for 2020, the number of non-financial enterprises operating in the Stara Zagora region is 15,105, or 1.7% less than in 2019. The largest number of non-financial enterprises is in the municipalities of Stara Zagora (9,043) and Kazanlak (3,284), or 59.9% or 21.7% of the total number for the district, respectively, and the smallest - in the municipality of Opan, where 87 enterprises operate. Micro-enterprises (up to 9 employees) are the most numerous - 14 009. The number of small enterprises (10-49 employees) is 911, medium enterprises (50-249 employees) - 150, and large enterprises (over 250 employees) - 35. The number of employed persons in non-financial enterprises in Stara Zagora District is 92 370, the production at current prices is worth BGN 7 914 million and a positive financial result of BGN 546 million was achieved.

Stara Zagora Municipality belongs administratively to the district of the same name and the South-Eastern Planning Region, sharing borders with the municipalities of Kazanlak, Muglitzh, Nikolaevo, Gurkovo, Nova Zagora, Radnevo, Opan, Dimitrovgrad, Chirpan and Brat'a Daskalovi. The analysis of the main components showed that within the Municipality of Stara Zagora the largest relative share of agricultural areas (61.1%), while that of settlements is 7.9%. It should be noted that despite this difference, almost 100% of the population of the municipality inhabits the settlement environment or the so-called urbanized areas.

Table 2. Municipal key components of the settlement environment in Stara Zagora Municipality.

Components	km.	Relative share (%)
Total territory	1019.1	100 %
Agriculture territories	623.1	61.1 %
Forest areas	259.6	25.5 %
Settlements	80.3	7.9 %
Water areas	17.5	1.7 %
Mineral extraction area	26.8	2.6 %
Transport and Infrastructure	11.8	.2 %

Source: National Statistical Institute, Stara Zagora municipality.

The municipal economy of Stara Zagora maintains good indicators, despite the declines in statistical data caused by the difficult conditions at the national and local levels, its future development faces several major problems to be solved. In Stara Zagora municipality, the local economy can be defined as diverse and representing all economic sectors. According to an expert assessment, Stara Zagora municipality does not have a clearly defined economic profile. This predetermines the need for an economic strategy supporting the sectors of conventional employment, but also those of high added value and growth - innovation, high technology, etc.

A general overview of the territorial structure of the municipality reveals several main patterns - the intermingling of forest and agricultural areas and their corresponding activities, as well as the dominant role of the municipal center for the full functioning of the entire municipality. The town concentrates the main economic and social activities and brings together all the important transport links. The municipal center is joined by a total of 51 villages, most of which have a population of less than 1 000. However, there has been a decrease in population density because of demographic processes such as mechanical and natural population movement, as well as the process of urbanization. Local development is associated with local self-government, which is of utmost importance for the economic development of the municipality of Stara Zagora. Economic indicators include GDP, GDP per capita, household income, and consumption. Over time, given the underlying doubts that an increase in GDP does not automatically lead to an improvement in well-being, different methodologies have been constructed to adjust GDP. Social indicators were initially associated with the objective assessment of quality of life. Subsequently, subjective indicators have evolved that combine the subjective assessment of human needs. The main drivers of regional economic competitiveness are entrepreneurship, production efficiency, investment in fixed tangible assets by local firms, foreign investment, research, and innovation.

The demographic situation at the end of 2021 shows that on the territory of Stara Zagora municipality, there is an available population of 139,926 people with permanent residence and 25,820 people with temporary registration. In practice, the resident population in the municipality amounts to 165,746 inhabitants. A careful analysis of the data shows that 136,475 inhabitants live in the town of Stara Zagora and 29,271 in the other 51 settlements in the municipality. In addition, it should be noted that 175 146 inhabitants are registered as having a permanent address in Stara Zagora municipality, which indicates that part of the population has migrated.

In terms of population density in Stara Zagora Municipality for the period 2016-2022, a decreasing trend is taking shape. In 2016, the values show that it equals 149 people/1 sq. km. During the next three years, an annual decrease of 1.2 persons/1 sq. km is emerging. The largest decrease is in 2020 (2.4 persons/1 sq km). The average annual decline in population density is about 1.2 people/1 sq km. Over the period under consideration, the total decline equates to 6 people/1 km². In 2021, the population density reaches 143 persons per km².

4.2. Spatial and Territorial Development of Stara Zagora Municipality.

Stara Zagora Municipality is in Southern Bulgaria, part of the South-Eastern Planning Region. It is one of the 11 municipalities of the same name. Its area represents 0.96% of the territory of Bulgaria, 5.4% of the territory of the Southeast Region, and 20.7% of the territory of the Stara Zagora District. The municipality is located mainly on three altitudinal belts - lowland (below 200 m), hilly (between 200 and 600 m), and mountainous (above 600 m). There is one town in the municipality - Stara Zagora. Stara Zagora Airport is located 2 km from the town of Stara Zagora and 8 km from the Trakia Motorway.

Stara Zagora Municipality is distant from Plovdiv (80 km.), Burgas (152 km.), Sofia (192 km.), Haskovo (62 km.), Sliven (63 km.), Kazanlak (29 km.) and Istanbul (308 km.), respectively. This shows that the city of Stara Zagora is in a good spatial location in our national space. In addition, the municipality has 51 villages besides the town of Stara Zagora, which occupy a significant part of its territory. These settlements are grouped according to the population indicator. Thus, according to the population data, the villages are grouped as very small (up to 200 inhabitants) - 19, small (between 200 and 1000 inhabitants) - 28, and large (over 1000 inhabitants) - 4. From the spatial point of view, it is necessary to emphasize that the settlements in Stara Zagora municipality cover a total area of 68.9 km², which makes up 6.3% of the

municipality's territory. Considering the transport availability, it is evident that 47 of the villages are very small, which implies that public transport to them is unlikely to be cost-effective. On the other hand, in terms of local self-government, only 28 villages have mayors, and the remaining villages have deputy mayors. Five of the town halls are close to the demographic minimum (250 inhabitants), but in practice are in danger of losing their status as self-governing communities.

The economic outlook of the villages is agricultural. Only 8 of all 51 villages have functioning schools, and 29 villages have no medical practices. A positive feature of the commune is the complete electrification and water supply to the villages. In terms of accessibility and inter-village connections, the villages can be divided into three main groups. In the first group are the villages with strong gravitational potential with the town of Stara Zagora, which is located close to the first-class road network. The second group includes villages located in the southern periphery, which in practice have some difficulties to use the first-class road network. The third group of villages is in the north-western periphery of the municipality. In this part, they have access to the lower-quality municipal road network. On the positive side for the settlements of the Stara Zagora municipality is the high degree of accessibility to the central part within a maximum of 30 minutes by car (for 16 villages - 10 minutes; for 14 villages - 11 to 15 minutes; for 12 villages - 16 to 20 minutes and for only 8 peripheral villages - 21 to 30 minutes).

The spatial assessment of the municipality of Stara Zagora requires a snapshot of the current location of the territory. According to the General Spatial Plan (GSP), the structure of Stara Zagora is made of 30 formal structural parts (districts), which are saturated with different contents and urban forms and different characters of the urban environment. In this direction, we can consolidate the urban system around the existing 5 structural units (the Old Compact City, the Southern City, the Eastern City, the Western City, and the Northern City).

In addition, based on the National Spatial Development Concept updated in 2019, the city of Stara Zagora has been identified as one of the 18 centers of agglomeration formations and functional urban areas (FUAs). Although the city of Stara Zagora is not a prominent agglomeration area, the proximity to Kazanlak (29 km), Chirpan (36 km), Radnevo (29 km), and Nova Zagora (32 km) creates conditions for the formation of a strong agglomeration core. This centrifugal needs to be unloaded and several satellite zones to be formed as secondary centers. This undoubtedly involves improving the functional and spatial links between the core and the smaller settlements within the area - a principal recommendation of the document cited. The town of Stara Zagora is situated on the border between the plain and the field, bringing together important economic and transport links of the municipality and fulfilling its main functions - habitation, services, production, and recreational potential.

In this respect, Stara Zagora municipality falls under the priority of Integrated Territorial Development of Level 2 planning regions, which will finance Integrated Territorial Investment (ITI) concepts in the implementation of the Integrated Territorial Development Strategies of Level 2 regions. This undoubtedly implies the implementation of an integrated regional development approach, which can define the implementation of interlinked and complementary (integrated) projects targeting territories with common characteristics or development potentials. Such an approach should include the most appropriate combination of resources and measures to be used in a targeted way to achieve a specific objective or priority.

The congestion of the street network is one of the main indicators of the impact of road transport on the ambient air quality of a locality. In quantitative terms, other things being equal, the greater the number of cars, the greater their relative contribution to overall air pollution. The transport load on the street network in Stara Zagora was determined based on the measured

average hourly intensity of vehicle traffic by type in the period 2016-2020. Long-term measurements are carried out by the Regional Health Inspectorate - Stara Zagora, by an approved noise monitoring program at a total of 30 sites in the city. Stara Zagora, including streets and intersections with heavy vehicular traffic. Data from a census of vehicular traffic at 30 additional points in the city in 2019 were also used in connection with the update of the Strategic Noise Map of Stara Zagora. The points have been selected to take account of the different nature of the traffic, with mixed transit and urban and predominantly intra-urban traffic. Characteristics of traffic flows are presented (percentage ratio between cars and heavy goods vehicles, including those from urban public transport).

The Stara Zagora Regional Road Department provided data on the traffic volume on the roads of the Republican Road Network (RRN) on the territory of the municipality for the period 2016-2019. In the period 2013-2020, some of the measures envisaged in the Action Plan for the management, prevention, and reduction of environmental noise of the Stara Zagora agglomeration have been implemented. In the period 2021-2026, it is planned to prepare and implement a Master Plan for the Traffic Organization of the Stara Zagora Municipality, which is closely related to the measures to reduce environmental noise. One of its main objectives is the improvement of the environmental conditions in the city because of the reduction of noise and gas emissions from vehicles and the improvement of the street schedule and the reduction of vehicle congestion at the intersections of the first-class street network of the city. Stara Zagora. These problems are on the agenda, but their phased solution is part of the management competencies of the local authorities, and they will be solved by applying good practices from developed European countries.

4.3. PEST analysis of Stara Zagora municipality.

The municipality has an approved transport scheme to transport passengers to all its settlements, the regional center, and the capital. The condition of the bus fleet can be more in line with modern requirements. This predetermines the necessity in Stara Zagora municipality to bring out some of the specific political, normative-legal, economic, ecological, socio-cultural, and technological components (PEST analysis) that would show the trends in the spatial policies. Political and regulatory factors: relative political stability (EU membership) at present and in the future; the low impact of terrorism (Global peace index, 2020) and maintenance of traditionally low levels of crime, which leads to a redirection of the traffic flow from neighboring countries to Bulgaria; easing of visa procedures for non-EU countries; established regulatory framework and program framework based on European strategic documents. All this shows the favorable influence of political and normative-legal factors on the development of transport in Stara Zagora municipality. Negative influences are the perception of corruption in the country (Transparency International Bulgaria, 2020); the tendency to increase the tax burden depending on the level of pollution; the exit of the UK from the European Union, and the resulting changes in the travel related to the required documents, visa regime, standards for transport services and other organizational and technical changes.

Economic factors related to increases in overall incomes and therefore the cost of living, ease of access to credit, and access to European funding - all of these have a positive impact on the potential for better transport accessibility within Stara Zagora municipality. It is important to note that Stara Zagora municipality is characterized by a diverse demographic profile of the population - mainly concentrated in the municipal center, where people with higher education are predominant, incomes are higher and more leisure time is available, but in the country as a whole life expectancy is relatively short, income growth rate is slow; industry does not have enough skilled employees. Stara Zagora Municipality has gradually over the last 10 years moved towards digitization of all business and technological processes. A prerequisite for

successful digitalization is the high level of high-speed internet coverage throughout the country, including in Stara Zagora municipality, which means the digitalization of transport infrastructure and main public transport in the municipality.

4.3.1. Geodemographic structure of the population in the Stara Zagora area.

In the center of the area is the town of Stara Zagora, where 124 599 people live, the total population of the municipality amounts to 151 096 people. In terms of the age structure, the largest relative share among the migrants are persons aged 60 years and over - 27.6%, followed by persons in the age group 20-39 years (25.9%) of the migrants. The largest territorial movement is along the "town-village" route (38.2%), followed by the "village-town" (34.2%) and "town-town" (17.2%) routes. Significantly smaller in number and relative share is the migration flow along the "village - village" direction - 10.4% of migrated persons.

The relative shares of the youngest population in total, among men and women in the area and its center are approximately equal and range between 12.6 and 14.6%. The total population under the age of 14 in the whole area is 13.5% and its average annual number is about 22 thousand. In the city, the population of this age is 20 thousand with a relative share of 13.7%. Hence, there are only 2 thousand people of this age in the periphery of the area. More significant are the differences in the proportion of old people aged 65 and over. The relative share of the old population in the area is 16.9% and in the city 13.8%, but both shares are lower than the national figure of 18.3%. The relative proportion of males of this age in the city is the lowest at 11.5%, and the highest proportion of females is in the area at 19.4% of the corresponding population. In the area, the old people are nearly 28 thousand, of which 19 thousand live in the city. The average age of the population overall for the area is close to that of the country and is 42.1 years. In the city, this indicator has a lower value - 40.8 years. The total population's independent age ratio in the area is 43.7%, which is lower than the national figure of 46.8%.

The demographic load of the young and old populations is different. The ratio of the population under the age of 14 to the working-age population is 19.4%, while it is 24.3% at older ages. With these ratios, it is found that in the total demographic load, 44% is due to the young ages and 56% to the old ages. For the center of the area, the population ratio between dependent and independent ages is 37.9%. There is not much difference here in the levels of the working-age population load with the two age categories. The rates for this dependency are 18.8% for the young population and 19% for the old population respectively. The proportion of the young population workload here is higher compared to that for the areal, 49.7%, which is demographically in a better situation.

The demographic replacement rate overall for the areawide is lower than the national total. In the area, 100 people moving out of working age are replaced by 69 people. This ratio is better in the city, where 100 people exiting are replaced by 74 people. Among males, the replacement rate is higher than for females and is 78% for the area and 83% for the city. The same figures for women are 62 and 67%.

In social terms, the following trends are emerging for Stara Zagora Municipality:

An unevenness of dynamics in social, territorial, and demographic aspects - (1) in the social aspect it should be noted the increasing social differentiation; (2) the territorial aspect is characterized by unevenness of development between the urban agglomeration of Stara Zagora and the rural regions, especially the municipalities of Brat'a Daskalovi and Opan; (3) in demographic aspect, the dynamics are also extremely uneven between different regions - from

weakly sustainable in the city of Stara Zagora to significantly unsustainable in the mentioned municipalities of Brat'a Daskalovi, Opan, and others. The unsustainability of dynamics - the dimensions of this unsustainability are precisely in the significant social differentiation, increasing so-called "vector poverty", i.e., for children and grandchildren - the next generations, decreasing social prospects for professional and creative development, and hence the achievement of comparable social standards of living with other EU countries, deteriorating employment, and this problem is particularly acute for youth.

4.3.2. Technological parameters of Stara Zagora municipality

In technological terms, the development of Stara Zagora municipality in recent years has been characterized by a downward trend. There is an emerging tendency of decreasing the technological level of the municipality – the more and more significant place is occupied by technology-based industries, oriented towards creating products with low technological efficiency and low added value. As an example, can be given such a structurally defining enterprise as "Mines Maritsa-Iztok" and chemical enterprises, which are not functioning, and those that are present are not characterized by higher technological efficiency of production. Similar examples can be given in other sectors such as electrical engineering, mechanical engineering, etc. The decline in the technological level of agriculture should also be noted.

4.3.3. Economic parameters of the municipality of Stara Zagora

In economic terms, the municipality of Stara Zagora is characterized by the following significant dimensions. First, there is a weak diversification of economic development, which implies vulnerability in case of adverse events. Untapped potential - the municipality (as well as the district with the administrative center of Stara Zagora) has a significantly higher potential for sustainable economic development than the one that is currently functioning. Territorial unevenness of economic dynamics – the presence of municipalities with one of the highest in the country concentrations of economic potential and at the other pole - municipalities with one of the lowest in the country's economic activity. A good illustration of the weak diversification of the economy of Stara Zagora municipality is the picture in the structurally defining municipality of the district - the town of Stara Zagora, which has no clear socio-economic profile.

5.4.4. Analysis of sectoral policies of Regional and local importance

The location of Stara Zagora municipality in the territorial space of Bulgaria is in the central part of the country gravitating towards the south-eastern territorial division. Over the years, there have been created specific economic features and the corresponding industries, the established traditions, and the created local socio-cultural complex determine the different sectoral policies of regional and local importance, namely:

- Economic Development Zone projects, energy, and transport projects, as well as tourism development projects that shape the new spatial image.
- Integrated territorial policy - from alternative tourism to the promotion of the efficient use of local agricultural potential, including measures to improve the quality of livestock farming, environmental protection, and the construction of alternative infrastructure in the west-east and north-south directions.
- Projects related to cross-border, inter-municipal, and territorial cooperation.

5.4.5. Projects for economic development zones of Stara Zagora municipality

In terms of regional development, the city of Stara Zagora plays a leading role. There is a possibility to form four economic development zones in the city, which would become "impact and investment zones", this approach needs to be approved by the Municipal Council at Stara Zagora Municipality. This targeted development approach should be integrated into the municipal regional policy in the foreseeable horizon up to 2040 years. Spatial development and spatial planning of the municipality's territory, which also affects the territories of the Stara Zagora region, is a territory with a large proportion of areas with nature conservation status. Biodiversity in protected areas is an important factor and condition for the development of tourism and other economic and non-profit activities, stimulating small and medium-sized businesses and the development of the labor market. Another key aspect is transport connectivity and the quality of regional infrastructure, which needs to be integrated into the national spatial development concept. On the other hand, it should be noted that there are several problems, namely:

- Protected areas are not sufficiently well integrated into the spatial development of the municipality in the context of the development of the region and the South-East planning region of level 2 in the Republic of Bulgaria.
- The existing road network in Stara Zagora needs to be renovated, and new links and territorial connectivity patterns between Stara Zagora municipality and other municipalities in the district need to be established.
- Poor development of a few alternative tourism development sites leads to a significant reduction of the regional economic potential and poor management of some of the green areas, whereby the opportunities for higher qualities of the district deteriorate and the recreational and resort facilities are compromised.
- Particularly severely affected by these spatial development trends are the villages and formed recreational sites in the district of Stara Zagora, as well as the key city of Stara Zagora.

5.4.6. Spatial planning and optimization of municipal infrastructure

- The need to maintain a high saturation of the road network, including the railway network, and to increase the green areas in all settlements of Stara Zagora municipality and other municipalities of the same district.
- The need to maintain geo-economic zones and form a sustainable urban agglomeration Stara Zagora to develop:
- Creation of transport connectivity and regional infrastructure for transport accessibility.
- Improving the condition of green areas in the inter-block spaces.
- Increase the buffer transport system related to quality improvement along main thoroughfares and around neighborhoods to reduce noise and air pollution.
- Implementation of innovative tourism practices exploiting the potential of villages and recreational sites. Future tourism development in these areas should be regulated to prevent human traffic from overloading protected areas.
- Construction of a "Public Access Zone" at the intermodal passenger terminal of the railway station, Stara Zagora bus station, and other transport hubs and city bus stations.

About spatial development, the example of the city of Stara Zagora and transport communications in the city can be given, which need improvement:

- The congestion of the transport connections of the city of Stara Zagora leads to a strain on the street network in the central part of the city. The expansion of the built-up and emerging complex and the truck traffic that also passes through the urban area. The lack of bypass routes to accommodate the transit traffic, which reaches significant values in the summer season, requires the phased construction of those transport arteries, intersections, and nodes that are relevant to this problem.
- Acting both to design and construct bicycle routes and to promote bicycle transport among the citizens of the city as an environmentally friendly, economical, and healthy way of getting around the city and as an alternative to car travel.
- Creation of an "intelligent transport system" the development of a transport strategy and a program to visualize transport problems and, on this basis, the search for organizational solutions to solve transport problems at low cost.

Increasing the competitiveness of urban transport in Stara Zagora municipality can play a key role in ensuring the dynamic and sustainable growth of the urban economy. To achieve this, innovation and optimization of transport traffic should be developed. It is also necessary to improve the quality of supply in all its dimensions, to improve the professional qualifications of drivers, to overcome the seasonality of demand, and to diversify the supply of transport services. In practice, transport can also have social functions. This is because of the relatively high proportion of the poor living at risk of poverty - around 14-15 % of the population. The level of the risk of poverty and social exclusion before social transfers (including pensions) is significantly higher at 43% and is about 6 percentage points lower compared to the national level. The level of material deprivation for the poor in the area is approximately 40% over the period and is about 4 percentage points lower than the national level. This predetermines the strengthening of the role of social policy, which is called to promote the principles of humanity, as well as the protection and support of that part of the population that lives in a socially disadvantaged situation, by the generally accepted criteria and standards of living of the people. In the management of transport flows and the creation of a social environment within the city of Stara Zagora and the municipality, the population must be one of the foundations of social policy. So that the population has easy access to the different settlements and the municipality has efficient, quality, and prestigious public transport.

CONCLUSION

The place and role of Stara Zagora in urban development and regional planning consider its place in different territorial dimensions, based on the actual assessed potentials and functions performed as a city center in the national urban model. The historically formed, preserved, and stimulated links of Stara Zagora with the surrounding settlements and territories are conditioned. Researched and proven (theoretically and practically verified), different territorial scope and leading functions zones of influence of the city, formed by the degree of intensity and diversity of connections with adjacent territories. The manifestation of the organizing functions of the city. Stara Zagora in its adjacent zones, in terms of economic and transport connections, services, recreation, and administrative management activities. In this regard, the strengths in the regional context of the city are the city-center of urban structures, of a high hierarchical level. In practice, Stara Zagora is the nucleus of a large agglomeration area, which makes it a supporting center in the national settlement network, and at the areal level - a city

with zoning functions, especially in the service of the areal. The economic potential and the degree of development of the social functions and the related social infrastructure of the town are also key factors in the development of the city. Stara Zagora gives a positive reflection on the main parameters of the socio-economic complex not only of the Stara Zagora district but also of the South-East planning region. The region provides sufficient opportunities for the realization of the functions necessary for the city, which is facilitated by the well-structured and developed connections between the region and the city, the available opportunities for the construction of at least two common economic zones, the opportunities for the development of new economic clusters. The completion and maintenance of the motorways and high-speed roads, together with the modernization of the railway lines along the identified routes, will ensure a more rational spatial organization of the national transport network, providing connections between different European countries, across the territory of the country, Bulgaria's connections with neighboring countries and connections between the main urbanization centers, within the country and its neighbors.

The assessment of the socio-economic environment of the municipality of Stara Zagora shows the following:

- Stara Zagora Municipality and respectively the district has several advantages of natural-climatic and geographical-territorial character, which are not sufficiently exploited.
- Stara Zagora Municipality could improve the development of basic industries - chemical industry, technology and innovation zones, production of metals and metal products, transport means, food industry, and others, which are characterized by medium development in terms of technological level, as well as those in terms of added value.
- The general trend of shrinking foreign direct investments characterizing the period after February 2022 with the war in Ukraine is a new challenge for municipalities of the rank of Stara Zagora. But one should look for own reserves for pulling socio-economic development of the municipality and its settlements.

Stara Zagora municipality should set goals for a gradual transformation of the regional economy towards:

- ✓ Formulation of new goals and objectives for the development of the regional economy based on the socio-economic analysis highlighting the status and trends in the development of the level of education and in particular IT education in Stara Zagora.
- ✓ Improvement of human potential through lifelong learning, and development of free forms of education to be supported through projects by Stara Zagora Municipality. This should certainly help the implementation of measures and projects to improve the quality of vocational education and training, strengthen the relationship between vocational schools and business, which will lead to increased employment, and social integration, and facilitate access to lifelong learning.
- ✓ Rational use to develop the potential of the information technology sector and management systems. There is a need to deepen business-science-education linkages. It is necessary to provide favorable conditions for highly qualified training of specialists in secondary education to meet the needs of the business. In practice, the existing secondary education system and the University of Thrace - Stara Zagora should develop this need together.

- ✓ Impose a new model of transport connectivity and build regional infrastructure in the horizon to 2050.
- ✓ Putting into practice the good institutional capacity of Stara Zagora municipality, which will certainly, create certain opportunities for the development of education and economy within the municipality and the region.
- ✓ The development of new economic opportunities is related to modern technologies and their integration into life.

Based on the analysis, it can be concluded that there is a need to diversify marketing approaches to the population of Stara Zagora municipality. This means finding an effective transport system linked to structuring, developing, and promoting a regionally recognizable efficient transport that will distinguish the region, make Stara Zagora municipality easily accessible, and extend the efficiency of travel. This means more trust in transport, connected to its prestige, according to the way users look for information about daily urban journeys on individual lines. Generational differences should be considered in the development of transport products because they influence the choice of destination and the way of communication with users.

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