FACTA UNIVERSITATIS Series: Architecture and Civil Engineering Vol. 23, N° 1, 2025, pp. 51 - 68 https://doi.org/10.2298/FUACE240930006J

Original research paper

YOUNG- CHILDREN- CENTERED URBAN POLICY: CASE STUDIES IN NIŠ, SERBIA

UDC 712.253(497.11)

Aleksandar Jovanović^{1,2}, Katie Beck³, Aleksandra Milošević¹, Teodora Stevanović⁴, Dragan Daničić-Troger⁵, Görsev Argin Uz⁶

¹Public Enterprise for Urban Planning Niš, Serbia
 ²Belgrade Metropolitan University, Serbia
 ³London School of Economics, United Kingdom, ⁴Kapaprojekt doo Niš, Serbia
 ⁵Graz University of Technology, Austria, ⁶Marmara Municipalities Union, Turkey

ORCID iDs: Aleksandar Jovanović	https://orcid.org/0000-0002-9815-4344
Katie Beck	© N/A
Aleksandra Milošević	@ N/A
Teodora Stevanović	@ N/A
Dragan Daničić-Troger	@ N/A
Görsev Argin Uz	10 N/A

Abstract. The paper presented here analyzes two locations for urban interventions according to the principles of Sustainable Development Goals (SDG), with the focus on allowing young children and their caregivers to claim public space for their needs and to make these spaces more sustainable for the future urban redevelopment of the city areas that lack basic good health and well-being attributes.

The focus is on developing areas with insufficient urban parks and infrastructure for children and caregivers where there is a lack of identity with the public spaces. By analyzing questionnaires and interviewing caregivers and children, we identified the issues and methodology for solving problems according to the mentioned goals.

The results indicate that models to be applied to the case studies' locations involve a necessity of Public Private Partnership of the city with local brands and companies, to achieve sustainable physical and social development. The greatest potential for development of the area according to the interviews' results is in terms of shading and passive design principles. The outcome indicates a serious lack of green spaces in the new plans for the city and inadequate infrastructure for small children in the city. It also designates Čair and the Fortress for the application in terms of urban redevelopment as a tool for making the area a pilot incubator for energy-conscious space and safer neighborhoods for children and caregivers. This indirectly produces high-quality urban areas with children and value of the spaces presented in the paper and those surrounding them in mind.

Key words: sustainable, re-development, urban spaces, quality, children.

Received September 30, 2024 / Revised January 21, 2025 / Accepted February 7, 2025 **Corresponding author**: Aleksandar Jovanović - Public Enterprise for Urban Planning Niš, Serbia e-mail: aleksandar.jovanovic@zurbnis.rs

^{© 2025} by University of Niš, Serbia | Creative Commons License: CC BY-NC-ND

1. INTRODUCTION

There is a growing need for child security and development in the world. In Serbia, the need for such spaces that provide benefits for the personal growth of children but also pertaining to SDG goals, will grow in the future, as crime rates continue to develop around the country. (B. Josipović, 2024) "The focus of the Government of R. Serbia is improving the living standard of citizens, strengthening the economy with a focus on helping farmers and the continuation of the large investment wave that was started, that is, the realization of the largest capital projects in the area: infrastructure, transport, health, and sports.", according to the official statement by the Government of the Republic of Serbia on State priorities, that continue to be valid in 2025 (Vlada Republike Srbije, Republički Sekretarijat za Javne Politike, 2021).

Also, in terms of energy, the investment engagement is planned in terms of developing new and modernizing existing energetic capacities, as well as investing into the gas pipeline sector and renewable energy sources." (FREN, Fondacija za razvoj ekonomske nauke, 2024)

This implies that any project in the urban space that includes RES utilization, according to the sustainable development principles, heading towards more community engagement, improved air quality, and a better public infrastructure, leads to better living standard of the citizens.

Public architecture in terms of urban design is substandard in Serbia. According to the National Architectural Strategy of Serbia (Vlada Republike Srbije, 2024), there are several inconsistencies in rules and regulations.

"The application of the provisions of the Rulebook on technical standards of planning, design and construction of facilities, which ensure unhindered movement and access for persons with disabilities, children and the elderly ("Official Gazette of the RS", number 22/15) is often reduced to the achievement of the possibility of movement of persons with disabilities (installation of ramps and elevators), while other requirements are often neglected (for example, movement and stay of the visually impaired, visual and audio communication systems, positioning of doorknobs, movement of persons with disabilities in all areas, not including solely communication spaces, movement of the elderly and children, etc."

The same strategy states further: "Observing the practice of EU countries, it is noticed that the measures to fulfill the basic requirements for the building are arranged and elaborated with a set of technical regulations for each basic requirement individually, while in the Republic of Serbia one part of these regulations is still missing (for example, the rulebook regulating sound comfort). Also, it is necessary to innovate certain existing technical regulations in accordance with the standards adopted for a specific area, as is the case with the Rulebook on Technical Standards of Planning, Design and Construction of Buildings, which ensure unimpeded movement and access for persons with disabilities, children and the elderly ("Official Gazette of the RS", No. 22/15), which has limited application due to certain shortcomings, and also does not comply with the valid standard for this area: Building construction - Accessibility and usability of the built environment (SRPS ISO 21542)."

1.1. Public vs. Private Space

There is a large inequality in terms of investment in favor of the private building sector in Serbia. According to the above-mentioned strategy, "Data on the number of building permits issued by the type of building and type of construction work for 2019 show that building permits for "new construction", reconstruction, extension, adaptation, rehabilitation, and maintenance works were issued mostly for residential buildings with three and more apartments, then for industrial and business buildings, which, according to the nature of the type of buildings, indicates that both in new construction and in the sphere of "building renovation", the most investments were in privately owned buildings, while the number of permits for the construction and renovation of public buildings purposes, such as buildings for cultural and artistic activities, kindergartens, secondary schools, faculties, hospitals, and sports facilities, many times smaller, except for elementary school buildings whose renovation was carried out through 'renovation programs'". (Vlada Republike Srbije, 2024)

Despite focusing on school renovation as a method to achieve public space quality for children which is a good start in terms of building renovation approach, still public street spaces and parks or urban pocket spaces are left without recommendations in terms of children's safety, cognitive learning and achieving the spiritual-mental-cognitiveeconomy-ecology principles of children and adolescents 'welfare. The proposed welfare is based on the SDG principles and should be the basis for achieving results in terms of public space quality.

This research has led to the approach of piloting regeneration of two public spaces in Niš. The reason why it was decided to settle on these locations is the lack of parks in the municipalities within the case study city of Niš, great poverty and unemployment rates in the area, and low levels of economic development criteria that determine a successful community, according to (UN, 2023). The research in the following paper will explore how democratizing space can act as a driver for beneficial outcomes for children and by extension all citizens.

2. BACKGROUND

The lack of hierarchical and structural power distribution across the vertical axis has very much impeded the opportunities that may have been used in the time of the pandemics in Serbia. A centralized state has had its benefits in terms of controlling the flow of people in time of the pandemic and preventing the disease from spreading. All measures in the emergency state concerning Covid 19 were the same for all cities, no matter the size. There was a significant control of disease spreading and cities such as Belgrade, Novi Sad, Kragujevac, and Niš and their citizens showed good discipline pertaining to restriction measures and curfew.

The only thing that is lagging behind is this centralized and disciplined approach brought by the state and the city, in terms of discipline when it comes to greening the city, acquiring greater air quality, and putting well-being of children and caregivers as one of the priorities in city planning. It has so far underestimated the need to address crucial public space challenges that young children and caregivers face in Niš and other cities in Serbia. Seen through a child-friendly urban design lens, more is needed in terms of greening the city, improving air quality, modernizing development, and building

design standards and practices. The city's focus on retail areas above green space and parks scheduled for regeneration and intervention creates traffic-related challenges in the city. Crucially, there is a lack of consideration for the safety and needs of young children and caregivers in the current model. The status quo of public institutions is to focus on car-centric priorities, maintaining infrastructure for some citizens and groups like car users at the expense of the city's youngest citizens and those who care for them.

This "democratization of space" is an opportunity for cities and their municipalities to grow and change. Trpković et al. point to the fact that people with reduced mobility include young children and caregivers and that together with people with special needs, their position in public space is underestimated, both by numbers and in worldwide statistics regarding public facilities' appropriate architectures (A Trpković, 2023)

One of the most important aspects of applying this change is the utilization of hightech and Renewable Energy Sources (RES). In the areas where basic sustainable development characteristics are not indicated, energy efficiency, waste minimization and treatment, and RES utilization are essential factors and have been determined as key factors to change (Lukic, 2023). (A. Jovanovic, November 2018)

Some studies suggest the importance of remodeling education for sustainable development by focusing on urban planning, but the focus has so far been on higher education, ignoring the key developmental phase of babies and young children, leaving out the importance of considering their education for achieving these goals (Marija Maruna, 2018). Conversely, programs such as the *Urban95* Academy from the London School of Economics offer city officials a practical framework and tools that can be utilized in addressing the challenge. (LSE Urban95 Academy,). Some of the theoretical outcomes of the *Urban95* approach, particularly related to SDG as tools to achieve young-children –centered policy in the City will be explored in the following paper.

3. AIMS AND METHODOLOGY

The aim of these case studies of two urban districts in Niš, presented in this paper is to analyze possibilities to achieve sustainable development goals to make them applicable for creating urban spaces for young children and their caregivers.

The focus is on urban areas of Niš that currently lack parks and public spaces that consider the particular needs of children and caregivers in their design and implementation. Some areas facing significant crime rates and other challenges related to safety and quality of life could be improved for all users by rethinking elements of accessibility, safety, and usability from the perspective of young children and their caregivers. A questionnaire among the users of public spaces, in particular caregivers and children, was implemented, following the participation of the research team in the Urban 95 Academy and following the official toolkit for the project's implementation, suggested by LSE's *Urban95* Academy. Since the questionnaire sample did not go into detail enough, the next step included a set of interviews among the caregivers. Parallel to that, observation of children and caregivers was made and the outcomes were noted for each of the locations. By visiting the two locations and careful observation of their environments according to the U95 Toolkit [14], conclusions on the possibilities for using spaces were formed.

The interviews were gathered among caregivers with children during the day hours, in the morning and afternoon, with the representation sample in two locations. They were asked whether they were on the location accidentally or whether they used the space on a daily basis. Around 82 % of all respondents used the space at least two times a week. Children were approached in an assisted and careful way, with the help of their parents, and only when they wanted to take part in the interview.

The interview questions included age, education of the respondent, sex, child's age, information about the child's habits in using the open spaces, locations for it, and information on whether the caregivers and which of them, use the open space together with the child, how often, and in which way. Also, the interview references the current state of parks in the city for small children and asks for recommendations on what can be done to improve these. The last question included the views towards major city parks (Čair, Tvrdjava, and others when considered relevant to the caregivers' usage. The interviews lasted from 10-25 minutes.

Table 1 Distribution of the number of caregivers that took part in semi-structured interviews

Type of location	Male respondents	Female respondents	Total of respondents
Location one	3	9	12/33 (36%)
Location two	4	13	17/33 (51.5%)
Other (Generic) location	1	3	4/33 (12.5%)
	8/33 (24%)	25/33 (76%)	33 (100%)

Type of location	Male respondents	Female respondents	Total of respondents
Location one	26	24	50/124 (40%)
Location two	19	55	74/124 (60%)
	45/124 (36%)	79/124 (64%)	124 (100%)

Table 2 Distribution of the number of caregivers that took part in questionnaires

The set of questionnaires' questions included opinions on safety and protection, basic comfort, and interaction of the caregivers with the space and among each other within the space. They were done within a brief 5-minute period. A smaller number of respondents from the set of questionnaires agreed to be contacted further, so they were interviewed later and are part of the sample of semi-structured interviews.

4. CASE STUDIES

4.1. Location one analysis

The flea market as a gathering place for the community is an opportunity for creating different spaces for different needs. In the Roma community, it is a tradition for children to go with their parents to their workplace. It is common practice that parents do some physical work, usually collecting secondary raw materials or trading at a market where they sell stuff, whereas the children are always by their side and usually from an early age. The location is well positioned in proximity to the city center and within a fifteen-minute walking distance to the fortress (City of Niš Old city park in Fig. 9), bordering the

Medijana municipality downtown center on the East. The area is surrounded by lowdensity housing areas to the north, Roma settlement to the northwest, and an old industrial complex that has been gentrified to a commercial mix of different businesses. Unfortunately, no park or green area exists in the area. The only area reserved for interventions is the city-owned parcel of the flea market. Being an open parcel, with access from the north, south, and northwest, its improvement and modification to fit the needs of young children is the solution for claiming public space by the children and their caregivers. Most of the respondents from this location were female respondents (67%) aged 25-35, most of which were accompanied by children. A significant number of all respondents (32%) from this location pointed towards health issues of their children and related this to their children not using open spaces at all. Around 40% said there were not enough parks or green spaces in the area. Only one-sixth of the respondents (33%) identified the Fortress (The old city Park) as a venue for spending free time with their children, but this was not on a regular basis, and only 2 (16%) chose Čair (main city park). The reason they did so for the latter was the large distance they had to travel on foot to the main city park. For a majority of respondents from the location two interview sample (64%), location one was not appealing for spending time with their children. The reasons behind such views were that it was too far away from their homes, the majority of whom rarely visit this place (81 %) and would rather take their children to either the Fortress or Čair.

4.2. Location two analysis

At first glance, this location is well positioned for the needs of residents with proximity to key amenities and services like: a market, local health center, shops, a school, and a kindergarten. However, the area has been neglected and most of the green spaces are used for car parking, limiting spaces available for play or social use. By empirical observation around this neighborhood, we determined that children were only using one area for play: a basketball court. Others are visible, passing by, sitting on grass watching the plates, but not wanting to join in. A positive aspect of the location is that there is ample seating. Across the street, there is a kindergarten (shown in Figure 8 with its entry point in yellow), which is unfortunately closed on weekends. This is why there are not enough possibilities nor access for children and their caregivers for different varieties of play in the whole area. In the fenced courtyard of the kindergarten, there is a lot of greenery and places for children to explore, run free, and feel safe to move around.

Despite this, the inner block space and kindergarten parcel are physically divided even though there is only one residential street between them. Both locations have multiple and varied opportunities for improvement. Some key elements to address are lighting, parking, and shade. Overall, the two spaces, one very open and one very enclosed, have the potential to complement each other to achieve a unique and cohesive playground area that would benefit the neighborhood as a whole. A majority of all respondents in the interview set were from location two (51.5%), with 76 % female and 24% male respondents. Most respondents identified Čair or Delta Planet Square for spending time with their children. The latter was especially praised due to the presence of urban stationary for small children (35 % of the respondents preferred to spend time there because of this circumstance). On the other hand, Čair was appealing to 70 % of the caregivers because of the presence of sandboxes, slides, and swings for children. However, some 52 % were not satisfied with Čair either. They said Čair park lacks a number of amenities for small children (number of slides and swings), separate spaces for them, and barriers to older children's spaces. Also, a significant number (23.5%) said that the current swings have to be much lower, and in general more accessible to small children. When playing in the city park, small children socialize mostly when put in sandboxes, according to the majority of respondents (53 %). The outcome of both location responses had a couple of things in common: one, small spaces were even though small, enough to be creatively adopted for small children use. Second, there were not enough green spaces present in either of the locations. At the street level, small children are undermined and their playgrounds limited to older children's playgrounds and their dimensions, with proportions often not suitable for small children.

Almost all respondents from location two were satisfied with the project proposal to revitalize location two (95 %). However, a significant number (17 %) proposed other locations for revitalizations and said that much more can be done at the street level and street niches around Knjaževačka Street, than on the suggested location, in their opinion.

This is in accordance with the random sample that was acquired around the NURDOR headquarters in Vizantijski Bulevar, near St. Sava Park in Niš, with children diagnosed with cancer. Among the interviewees were the caregivers of such children and the majority of them (75%) pointed towards the need for their own local green spaces with adequate urban stationary, in front of their housing units and headquarters, which sways away from the concept of using main city parks and their amenities for these groups.

5. THE RESULTS OF THE ANALYSIS

The results of the analysis indicate a couple of streets in the vicinity of the location for possible transformations. The streets are dynamic and have vibrant pedestrian and automobile flow. Unfortunately, there is no separate space for children and caregivers. The sidewalks are in very bad condition. In one of the streets which is very dynamic, with car and truck traffic, the children are obliged to use sidewalks but have no chance to play on the streets. In front of the location chosen for intervention (location one) the flea market street is filled with parking lots and has inadequate infrastructure. On the contrary, this space can be made into a child-friendly street by claiming urban space for play and limiting parking lots numbers to strictly necessary, while enhancing Sustainable Development Goals' (SDGs) implementation through goal No. 9-industry and innovation, No. 10-reducing inequalities, No. 11-sustainable cities and communities, and No. 13- climate action. Some other SDGs are indirectly applicable by achieving these, such as goal No. 3, good health and well-being, No. 4-gender equality, and No. 17, partnership for the goals, among others (UN, 2023).

The child-friendly streets and refurbished public areas that need to be created in the city will create conditions for children and their caregivers to spend more time in the public spaces. Access to safe and supportive outdoor space is important for healthy brain development in children as well as for making important connections between children and their caregivers, and with other children and adults. Urban spaces welcoming young children and caregivers also create important connections for these groups to the city itself.

The current situation of the typical street design indicates commercially driven urban spaces that are not inviting to children and their caregivers. As a result, children become constrained to their homes or backyards (for those who have one) and are largely excluded

from public spaces. The biggest trade-off is that by replacing car parking lots with inviting, children-friendly sidewalks adorned with colorful paintings, the quality of public spaces can be elevated and along with it, the perception of the whole neighborhood can be transformed allowing for more developmental benefits for children. In return, the value of such neighborhoods' urbanity rises and attracts more revenues and business, bringing with it more spatial equity for diverse groups, which the city currently lacks. Currently, the city of Niš is not using any of the methods described, and is furthermore reluctant to implement the PPP^2 models, which in return would allow for a delivery of positive changes to young children and caregivers. On the other hand, the private sector is indicated as the driver of future changes in various case studies in many countries so far, where it reached out towards the public sector with innovative ideas. One example is in Utica, NY, USA, where both a local law firm, a brewery, and a public care center made synergies towards a sustainable districts program. (Utica, KGH, Book) The cities in these and other case studies (ISS, 2019) have been trying to mobilize creative thinking that involves children, young people, and caregivers to participate in the design of public places by holding regular meetings and paying *in situ* visits on daily basis to children sites, to gather opinions on utilization modes that can be addressed. As a result, an integrative landscape design flourished, changing the value of the downtown areas. The revitalization of this space has an influence on the empowerment of the local Roma population in the long run in the city area, as it sends signals on the importance of interaction with the physical and social environment of the local population in particular through an educational open space.

The use of <u>Čair</u> or Fortress areas and any newly developed parks for small children with cancer and serious illnesses is not completely out of the question. Especially, because at some point children with disabilities or in recovery will likely want to be part of larger social spaces such as parks³. This is why current main city parks have to be redesigned carefully following the natural environment principles, so as to allow for future integral environments.

6. POSSIBILITIES FOR CHANGE

In the 21st century, the very low-scale models applied to a micro-scale level of neighborhoods is an important pilot method to test the possibilities of implementation in the wider areas and on the city scale in the future (A. Jovanović, November 2018) (A. Milosević et al., 2023).

According to de Vries, there is a strong gap between a decisive local government and high-tech companies² even in developed countries such as the case study of the Netherlands had shown (Vries, 2023),. On the other hand, investing in underdeveloped regions of the cities, by the high-tech companies, serves as an indicator that a high-tech company wishes to engage with the local community, such as the proposition within location one. Regarding the educational elements of urban design, some surfaces of the playgrounds can be made with psycho-cognitive-motoric-development areas designed to encourage young children's development. This can be achieved by using child-safe

² PPP- Public Private Partnership

³ Children need spaces that are bacteriologically and immunologically isolated, but also open spaces for their own use, where they will have timely limited access to the outside environment in the beginning of their recovery the remission phase

materials and, to some extent, programmed projections onto play areas where children can be challenged to learn in a playful setting. The purpose of such activities is to create opportunities that invite children out of their houses and give them exciting and accessible outdoor alternatives to screen use at home. The goal is to increase the amount of time children and their caregivers spend outdoors in safe public spaces. To create more safe areas for play, a compromise with the parking plan has to be made, as some private vehicles are currently using green spaces and do not have clearly defined spaces for parking.

By adding more greenery and shade in particular, spaces can be created where caregivers and parents are comfortable in allowing them to stay longer with their children rather than just passing through the space. Enhancing existing spaces with play elements and materials such as wood, rubber, and other materials will provide more stimulating environments for children with more affordances. Opening access to the kindergarten courtyard and play elements that exist there is one of the steps. Also, facilitating co-creation workshops aimed at including the wider community in the process of designing and implementing the changes to the space to foster a sense of belonging and ownership of the space will lead to a more significant use of and care for the provision.

7. MODELS OF FINANCE AS A TOOL FOR SUSTAINABLE DEVELOPMENT OF THE PROJECT

Most of the budget for these kinds of projects is public-based, either from the state or the city of Niš, covering the costs of their development and design. Unfortunately, due to different infrastructure and recreational projects that are ongoing in the city currently, some projects are put on hold, since they lack financing. Urban redevelopments are at the bottom of the list and will continue to be there. Taxpayers are already overwhelmed with tax rates, especially parking lot rental revenues need to be high as the city claims even semi-public areas between buildings for rental in order to fill the city budget otherwise deprived of taxes because of the lacking number of substantial profitable businesses in the area of Niš.

There are several possibilities for financing these two case study projects.

In the first case study, there is at least one company that develops software. Due to the gentrification of the area, this part of the city is appealing with lower rental costs and affordable working space. We determined a narrow slot for them to provide a PPP model for implementing a software-integrated urban space, allowing toddlers and caregivers to learn about high tech and to advertise what they are doing within the project. The companies that sell HVAC products are considered possible partners for the PPP models described, especially in terms of suitable aspects of environmental control.

In the second case study, an Icelandic software company Symphony has nearby offices. We would like to involve them and all other of their peer companies, to finance the tech side of the urban children's parks. We are going to ask the city of Niš for legal utilization permissions for the areas. The revenue from renting the spaces to the company will go into the budget for the city and allow for the maintenance of the lots.

Through this public-private partnership model, we also involve the State and ask for funding of the project. The focus is on private donations from parties that see interest in children of the peripheral places in the city, to get more involved in the urban space quality criteria adoptions. As the Government of Serbia already declared a top priority of its citizens, its public policy institutions, along with the Ministry of Civil Engineering and Construction, Ministry of Science, and Ministries of Social Welfare and Education, are indicated for involvement in the project, but not exclusively.

The principle described forms a mode of investments 'circulation, as the state benefits from lower crime rates and touristic potential awareness of Niš, like Tirana had already achieved by its child-centered policies (ISS, 2019). Some EU-based projects have gained awareness following the strong participation of community dwellers in designing the spatial morphology and these could be implemented in the case of Niš as well. (Torres Vedras Camara Municipal, 2024) Some other case studies, discussed by Irimes et al. (Laura Maria Irimes, 2023), indicated that for marginalized groups, transparency and visibility of the projects 'outcomes serve as a tool for its successful integration into the community. Since children are considered a marginalized group, the dealing with the problem in our case studies' approach must be done with similar directions and careful strategic planning, which must be additionally supported by groups of caregivers as stakeholders. One key element to the creation of spaces for small children is their future passive design principle, shading, and green infrastructure. According to the analysis, most playgrounds in the city are unsuitable for children, especially on very hot summer days, due to their false positioning in the park areas. Most respondents (67 %) indicated that they could not make use of the current urban stationary because it gets hot at high temperatures and is affected by direct sun irradiation, especially because there is no appropriate shading or trees above it to mitigate the extreme conditions.

8. SUGGESTED PHASES OF THE PROJECT AND SPATIAL CONCEPTS

The first phase of the case studies' projects is making workshops with children and caregivers. The purpose of this phase is to empower participation in the workshops. In the second parallel phase to this one, it is necessary to inform the city of the legal constraints to get the space for interventions. In the third phase, involving the private sector to get app. 50 % share in the financing is necessary. Approximately 25% of the funding is required from the State and 25% from the City's budget on eco-measures. Informing the city and suggesting that new building development tax acquired by the city can be invested into the creation of urban places for toddlers and babies and their lifelong maintenance models, is a possible support tool for mitigating urban development bad sides.

On the spatial level, the city of Niš is centralized with major parks accepting toddlers and caregivers, but a majority of them (70%) prefer to have their own local small parks where they could spend time with their children, rather than having to use major parks for such needs of their children and their own time.

9. POLICY CHANGES AND RELEVANCE FOR OTHER JURISDICTIONS

Public sector authorities both at the city level and at the state level should seriously restructure their policies and strategies regarding small children. In terms of the equal spatial distribution of parks and green areas where children spend most of their time outside, child-friendly parks, and sidewalks, street niches' treatment should be an integrative element of general Urbanistic plans and strategies. In light of the new National Architectonic Strategy and Law, a more detailed explanation on how exactly to

achieve child-friendly areas as a binding element in planning regulations is needed. The newly designed law on planning and construction expected in 2025 must deal with a mechanism to include parameters for children's well-being and surpass the financial will of the investors, as most children are faced with serious health-related hindrances in the future, constrained to the inner space for most of their lives. Creating a clean and welcoming outdoor environment is the first step towards their and their caregivers' re-integration into the outdoor environment.

10. IN CONCLUSION

The most suitable transformations that are needed for urban redevelopment areas in the city of Niš are child-friendly streets, child-friendly sidewalks including lively colors, and spiritual-psycho-motor-cognitive-development areas for kids that rely on the principles of economy, ecology, and energy. The quality of such a neighborhood's urbanity lures more revenues and businesses and makes the city with more spatial equity, as a precondition for sustainable development of the city areas in the future.

In this perspective, it is possible to affect five different aspects and develop them in the areas analyzed in this paper in order:

- to promote awareness of the population for SDG
- to support the empowerment of the population, especially minority and vulnerable groups
- to deliver action for urban space change and upgrades
- to achieve spatial and economic sustainability of the area
- to engage the application of creative solutions, in terms of supporting local businesses and using more private-public partnerships as models.

A greater determination for decentralization of public areas on the State level and among the citizens must exist in the first place. The urban areas' development strategies should be made by creating local urban spaces promptly (in the following decade of 2025-2035), so as not to lose the sense of urban identity among citizens who live in the area. For these projects to be applied, the wish for the thriving of local social and urban landscapes among the city officials must be created as a pre-condition.

As argued in the introduction, State priorities being the welfare of citizens, positive outcomes of the projects described directly put a higher standard for public space in the law, allowing for not only privately owned buildings to be top priorities, but also adding the number of public spaces that undergo some form of change, thus the investment ladder sways from the private sector into the public realm. In return, these and similar projects produce more revenues for the state and the city budgets, allowing for more benefits for the citizens and fewer problems for the North-South inequality problem. Well-designed child-friendly spaces, as well as convenient energy supplies and awareness of security, are indirect generators for people to stay in the area, put as State priorities, and this also indirectly addresses the issues of internal migrations within Serbia, as a strategic response for attainable and aspired living quality of the citizens, as a strong starting point.

SUSTAINABLE GOALS



Fig. 1 Sustainable Development Goals, among which the proposed locations' redevelopment addresses directly five goals, among which affordable and clean energy, no poverty, good health and well-being, and sustainable cities and communities



Fig. 2 Pictures above: flea market inside; current place for retail would be supplemented by space for young children



Fig. 3 The area of location one, showing the current flea market



Fig. 4 Pictures above: some entry points in the flea market where open spaces can be created and interpolated for the benefit of the local population

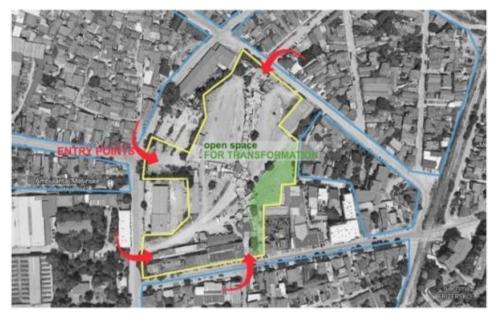


Fig. 5 The suggested solution for location one, transforming the hatched area into livable places by implementing SDG goals



Fig. 6 The area of location two, showing the current kindergarten and open space for transformations



Fig. 7 Pictures above: some views of the current open spaces that need refurbishment and rethinking



Fig. 8 The hatched area in green showing the intervention scope and an integration of the entry point to a local kindergarten playground

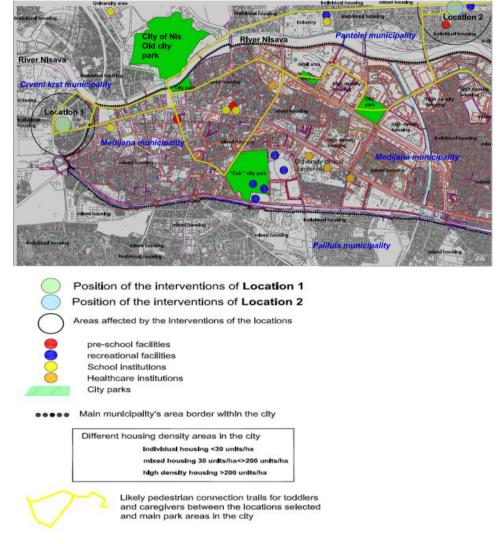


Fig. 9 Urban layout plan analysis of the city of Niš, two locations are represented in white circles and main city parks in green

Acknowledgement: In this paper, we have used the methodological sample issued by the London School of Economics, within the Urban 95 Academy for City Decision Makers. There is no conflict of interest in the results presented and the authors are not linked to any funding bodies or professional or public institutions' funds or views.

REFERENCES

- A. Jovanović, M. Jovanović (November 2018). Industrial Heritage with Recommendations on Integration of Renewable Energy. ICUP 2018 PROCEEDINGS/ Proceedings of the second international conference on urban planning ICUP 2018. Nis: Urban Planning Cluster, Nis.
- A. Jovanović. (2018, February). Doprinos geotermalne energije urbanoj transformaciji grada Jutike u SAD, sa aspekta urbanističkog planiranja. KGH-Klimatizacija, grejanje, hladjenje, 89-93.
- A.Jovanović. (2020). Geothermal Utilization in Cities in Europe and USA. Graz: Verlag der Technischen Universität Graz.
- A. Milosević et al. (2023). Urban transformations on two locations in Nis for the Urban 95 academy 2023. In S. T. Association, Catalogue, 32 st Urban Planning Exhibition (p. 07.14.). Nis: Serbian Town Planner's Association.
- A.Trpković, G. S. (2023). Cities tailored to everyone- transport and traffic inclusiveness of people with reduced mobility. XV научно-стручна конференција са међународним учешћем "Климатске промене и урбанизација" (стр. 118-129). Belgrade: Union of Engineers Belgrade.
- B. Josipović (2024). Bilten: Punoletni učinioci krivičnih dela u Republici Srbiji, 2023.: Republika Srbija, Republički Zavod za statistiku, Beograd.
- City of Nis. (2023, June). Representational Map of The City's Municipalities and Urban Locations selected for Analysis and Interventions. U95 Entry, City of Nis, Urban 95 Academy. LSE, London.
- FREN, Fondacija za razvoj ekonomske nauke. (2024). IV Infrastrukturni prioriteti. Fondacija za razvoj ekonomske nauke, Kamenicka 6, Beograd. Belgrade: FREN, Fondacija za razvoj ekonomske nauke. Retrieved 07 04, 2024, from https://www.fren.org.rs/wp-content/uploads/2020/01/Infrastrukturni-Prioriteti.pdf
 ISS, program of the Woodrow Wilson School of Public and International Affairs:
- ISS, program of the Woodrow Wilson School of Public and International Affairs: successfulsocieties.princeton.edu. (2019). Reconstructing a City in the Interests of its Children: Tirana, Albania, 2015–2019. New Jersey: Princeton University.
- Laura Maria Irimeş, C. I. (2023). Romanian Ngos' Efforts to Advocate on Behalf of Marginalized Groups and Prevent Social Turbulence. Transylvanian Review of Administrative Sciences, Sp. issue.
- Lukić, A. (2023). Environmental Economy as an essential determinant of sustainable development. XV научностручна конференција са међународним учешћем "Климатске промене и урбанизација" (pp. 110-117). Belgrade: Union of engineers of Belgrade.
- 12. Marija Maruna, R. Č. (2018). remodelling Urban Planning Education For Sustainable Development: The Case of Serbia. International Journal of Sustainability in Higher Education.
- Torres Vedras Camara Municipal. (2024, 04 09). Participação. Retrieved 04 09, 2024, from https://www.cm-tvedras.pt/: https://www.cm-tvedras.pt/participacao/
- 14. UN. (2023). The Sustainable Development Goals Report 2023: Special Edition. NY, USA: United Nations.
- Urban95 Academy. (2021). Urban 95 toolkit, Public space and public life. London: London School of Economics (LSE).
- Vlada Republike Srbije. (2024). Nacionalna arhitektonska strategija do 2035.godine. Belgrade: Vlada Republike Srbije.
- Vlada Republike Srbije, Republicki Sekretarijat za Javne Politike. (2021). Akcioni plan za sprovođenje programa Vlade za period od 2020-2022. godine. Izjava o prioritetima Vlade Republike Srbije. Belgrade, Serbia.
- Vries, M. S. (2023). Turbulence in the Relationships between Governments and High Tech Firms. Transylvanian Review of Administrative Sciences, Special Issue.

SOURCES

- 1. SDG goals, https://sdgs.un.org/goals, accessed 11.10.2023
- 2. https://www.lse.ac.uk/Cities/publications/blogs/230120-Bridging-the-Gap-from-95-cm, accessed 14.11.2023

ABBREVIATIONS

- 1. SDG Sustainable Development Goals
- 2. RES Renewable Energy Sources
- 3. PPP Private Public Partnership
- 4. NURDOR National Association of Parents of Children Diagnosed with Cancer

STUDIJE SLUČAJA U NIŠU VEZANE ZA JAVNE PROSTORE ZA MALU DECU

Rad koji je ovde predstavljen analizira dve lokacije urbane intervencije u skladu sa principima Ciljeva održivog razvoja (SDG), sa fokusom na omogućavanju maloj deci i njihovim starateljima da zatraže javni prostor za svoje potrebe i da ovi prostori budu održiviji za budući razvoj područja. Cilj je pospešiti razvoj urbanih područja kojima nedostaju osnovni atributi dobrog zdravlja i blagostanja.

Fokus je na ugroženim područjima, nedostatku urbanih parkova i nedostatku infrastrukture za decu i staratelje, i gde ne postoji porepoznavanje i poistovećavanje sa javnim prostorima i osećaj pripadnosti. Analizom ankete i intervjuisanjem staratelja i dece identifikovali smo probleme i metodologije rešavanja problema prema navedenim ciljevima.

Rezultati pokazuju da modeli primenjeni na lokacijama studija slučaja indikuju neophodnost javno-privatnog partnerstva grada sa lokalnim brendovima i kompanijama, kako bi se postigao održiviji fizički i društveni razvoj. Time se indirektno stvaraju kvalitetna urbana područja sa primenom visokotehnoloških rešenja,stvaraju se napredni modeli kao uzori, a samim tim se povećava obrt kapitala i vrednost šireg prostora koji okružuje područje intervencija.

Ključne reči: održivi razvoj, razvoj, urbani prostori, kvalitet, deca