

THE INTERNATIONAL CONFERENCE
SYNERGY OF ARCHITECTURE & CIVIL ENGINEERING
SINARG 2023

PROCEEDINGS

VOLUME 2



International Conference

**Synergy of
Architecture &
Civil Engineering**

Niš (SERBIA) - Science & Technology Park Niš - September 14-15, 2023

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SYNERGY OF ARCHITECTURE & CIVIL ENGINEERING
SINARG 2023**

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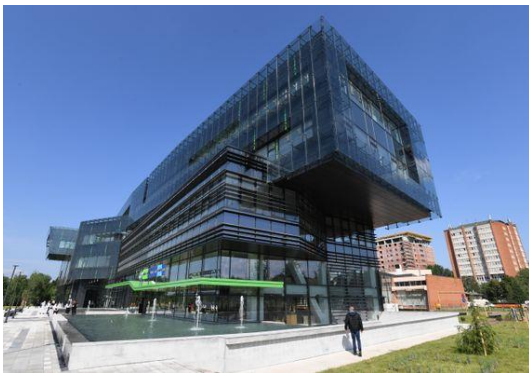
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- ✓ *BIOClimatic AND BIOPHILIC ARCHITECTURE*
- ✓ *PRINCIPLES OF ECOLOGICAL DESIGN AND CONSTRUCTION*
- ✓ *BUILT HERITAGE PROTECTION AND MANAGEMENT*
- ✓ *BUILDING RENOVATION AND RECYCLING*
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- ✓ *STRUCTURAL ENGINEERING*
- ✓ *MATERIALS IN CIVIL ENGINEERING AND ARCHITECTURE*
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CONFERENCE VENUE



International Conference

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PREFACE

The primary goal of the SINARG 2023 conference is to present contemporary achievements in the scientific and practical aspects of architecture and civil engineering. The organizers of the conference aimed to facilitate the participation of both national and international professionals in theoretical and experimental research related to the processes of design, project management, construction, and building maintenance within the construction industry.

Simultaneously, this scientific conference serves as a platform for exchanging experiences and information regarding innovations and advancements in planning, design, new materials, and construction and reconstruction technologies within the fields of architecture and civil engineering.

Therefore, this conference should serve as a forum where experts from civil engineering, architecture, and other related fields have the opportunity to present the results of their research. In that context, conference topics have been carefully selected to provide focus on current issues in the field and encourage productive discussion bringing fresh and original insights and concepts to the forefront.

More than 180 paper proposals have been submitted to the conference. A single-blind review process was used to assess the full papers. The reviewers are esteemed scientists holding PhD degrees in the same field as the paper's topic. There are more than 70 reviewers from ten countries who have significantly contributed to the scientific quality of the conference, and their names are printed in the proceedings.

*A total of 142 full papers have been accepted for publication. Some of the papers have been selected for publication in our journals, with nineteen papers in *Facta Universitatis: Architecture and Civil Engineering* and nine in the *Journal of the Faculty of Civil Engineering and Architecture*. The conference proceedings consist of 114 papers divided into two volumes.*

The total number of authors and co-authors accepted for publishing at SINARG 2023 exceeds 320. Out of this number, more than 80 authors come from abroad, representing 19 countries (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Germany, Greece, Hungary, India, Indonesia, Netherlands, North Macedonia, Montenegro, Oman, Poland, Romania, Serbia, Slovakia, Turkey, United Kingdom).

The editors express their gratitude to all the authors for their participation and to the reviewers for their valuable comments, which have contributed to the improvement of the original manuscripts and have enhanced the overall quality of the conference..

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PUBLIC PARTICIPATION SUPPORTING URBAN SUSTAINABILITY TRANSITION: RECENT EXPERIENCES FROM PLANNING AND GOVERNANCE PRACTICE IN SERBIAN CITIES

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Abstract

Sustainability transition in urban settings requires planning and governance practice to re-evaluate and reimagine the local community's quality of life, including but not limited to the domains of social wellbeing and accessibility to the services of general economic interest and public space, sustainable forms of commuting, climate change adaptation, green and low carbon development and economy, environmental protection and disaster risk reduction (Green Agenda for the Western Balkans, 2020). The general public and non-experts have an important role in informing planning policy and practice about current needs, capacities and anticipated risks in urban settings, which calls for re-examining of the traditional decision-making hierarchies. Serbia recently adopted a cycle of policy documents supporting participatory action at all levels of decision-making in line with the opening of Chapter 22 – Regional policy and coordination of structural instruments as part of the European Union accession trajectory, as well as the sub-goal 11.3 of the United Nations Agenda 2030 to enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable planning and governance in human settlements. This paper outlines the objectives and instruments for the operationalization of public participation in the recent policy framework and discusses some of the practical experiences in planning and governance in ten Serbian cities. Methods used were semi-open questionnaires with representatives of local urban planning departments, qualitative content analysis of adopted urban plans, publicly available reports on conducted citizen participation and stakeholder involvement, and local strategic documents, and, participant observation at joint workshop with city representatives. The results indicate that urban planning and governance practices require space for learning and experimentation, where open and inclusive participation, as well as related empowerment, represent a necessary condition for an urban sustainability transition. The undertaken research with city representatives was supported by the World Bank Group and SECO project "Technical assistance: Strengthening capacities of local self-governments in Serbia towards low-carbon and resilient urban development investments".

Keywords: *public participation, governance, sustainable urban development, sustainability transition*

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1. INTRODUCTION

Joint programs, projects, and initiatives for strengthening deliberative practices in sustainable urban development have been widely diffused across Europe. The real needs of cities impose the urgency for the development of professional planning competencies, institutional capacities and academic progression in transition to the more sustainable forms of urban governance [1]. One of the policy objectives of the Cohesion Policy of the European Union (EU) 2021-2027 [2] is Europe closer to citizens by fostering the sustainable and integrated development of all types of territories responding to the challenges of cities. As one of those challenges, the Covid-19 pandemic between 2020 and 2022 has demonstrated that the emergence of new conditions and new problems cannot be solved solely by traditional planning and government regulations, or market instruments [3], but require re-evaluation of their political, economic, and social structures. In addition, the lack of public resources places pressure on cities' networks to achieve ambitious goals, giving urban governance and citizen engagement an important role in the allocation of material, but also knowledge and skills resources [4, 5, 6]. Southeast Europe countries, namely non-EU members with pre-accession status such as Serbia, still have limited experience in participatory and integrated sustainable urban development due to lower institutional capacities and reduced access to funding for testing and innovation.

The local context of Serbia is characterised by the economic transition, as well as regulations that do not follow the speed of the EU policy [7]. Over the past decade, several initiatives have been undertaken to raise awareness about sustainable urban development in Serbia, aligning with the EU Cohesion Policy 2021-2027. These efforts have focused on enhancing administrative capacities and fostering regional and cross-border cooperation (goal 5 of the EU Cohesion Policy – Europe close to its citizens). One significant outcome of these endeavours is the adoption of the Sustainable Urban Development Strategy of Serbia 2030 (2019), demonstrating the national government's dedication to implementing a framework for sustainable urban development [8]. The framework for implementation of the Strategy emphasizes the participatory approach in identifying the priority areas of spatial intervention and formation of local governance pathways in urban areas. The aim is to support sustainable urban transition in a bottom-up fashion, where urban governance represents “the pursuit of collective goals through an inclusive strategy of resource mobilisation” [9].

Several Serbian cities initiated the formation of local integrated urban development strategies for inner-city areas backed up by technical support of international organisations such as the United Nations Human Settlements Programme (UN-Habitat) in 2007 and the German Agency for International Cooperation (GIZ) in 2013. The EU PRO Plus programme for local economic development, implemented by the United Nations Office for Project Services (UNOPS), continued these efforts by financing and providing technical support for the formation of twelve sustainable and integrated territorial development strategies covering the territory of thirty-one Serbian cities and municipalities (2021-ongoing). Additionally, World Bank and Swiss State Secretariat for Economic Affairs (SECO) technical assistance project is directed towards strengthening the capacities of local self-governments in Serbia towards low-carbon and resilient urban development investments in ten Serbian cities (2021-ongoing). The common objective of these

programs is to strengthen the capacity for urban sustainability transition through participatory action.

This paper refers to the research undertaken within the World Bank and SECO project for strengthening the capacities of local self-governments towards low-carbon and resilient urban development investments. The undertaken research aims to understand to which extent participation at the levels of informing, consultations and active participation serves as a base for transformative action supporting sustainability transition in ten Serbian cities [10]. The research results are contextualised in line with the objectives and instruments for the operationalization of public participation in the recent policy framework.

2. METHODOLOGY

Research design is tailored towards the understanding of the existing participation capacities of cities in urban planning and governance practice. The research methodology identifies the cases in which participatory action was incorporated within formal planning procedures to enhance the transparency of the planning process. In addition, the research was seeking an understanding of the planning professionals' efforts to identify the needs and interests of diverse actors to enhance more realistic planning and/or policy concept.

A purposeful sampling strategy by collecting expert knowledge of planning practice in a real-world setting aims to inform the formation of a more responsive planning policy [11]. Case studies in this research are ten Serbian cities: Kragujevac, Kraljevo, Leskovac, Niš, Novi Pazar, Šabac, Novi Sad, Sombor, Užice, and Zrenjanin. The case selection was predetermined by the mandate of the World Bank Group and SECO project.

The initial stage of the research performed in January 2022 identified the current policy framework for implementation of citizen participation and stakeholder engagement through desk-based analysis of recently adopted national acts in the domains of EU integration, planning, governance, local administration, social cohesion, and gender equality. Gathered quotes from the policy documents served as a starting point in understanding the formal support for the implementation of the participatory approach in sustainable urban development.

Moving from the policy analysis, qualitative inquiry with representatives of ten cities via open-ended written questionnaires with representatives of local authorities (mainly planning practitioners) in May 2022 is employed as a primary, and content analysis of local planning documents and cities' web portals as a secondary and complementary method of data collection and analysis. Questions were directed towards understanding practitioners' daily practice, i.e., if and how they perform participatory actions to actively engage different local action groups, investors, grass root organisations, professional associations and citizens in the formation of local urban and spatial plans and strategies [12]. Content analysis of the local plans, reports on conducted citizen participation and stakeholder involvement and strategies available at the local municipalities' web portals was performed during July and August 2022. The analysis considered qualitative content relating to the organised participatory processes in the formation and adoption of the plans/strategic documents.

The final phase of the research was participant observation and collection of planning professionals' narratives during the joint capacity-building workshop in the city of Kraljevo (Figure 1). This step was particularly important in order to obtain a direct account of the practitioners' work in a "face-to-face" communicative setting in which city representatives spoke about the potential and obstacles in implementing citizen participation and stakeholder engagement in their daily work. The described events relate to the experiences that planners face while dealing with the variety of interests in the formation process of urban and spatial plans, urban development strategies, and local development plans [13, 14].



Figure 1. Capacity building workshop in Kraljevo, source: Authors' archive

To assess participation capacities in selected case studies, qualitative findings obtained from the semi-open questionnaires with practitioners, results from content analysis of local planning documents at the web portals of the local authorities, as well as narratives from the workshop in Kraljevo were triangulated in each case study. The qualitative data, which was summarized, was presented based on the level of participation, namely through informing, consultation, and active participation, and exemplified on a descriptive chart (Figure 2). The levels of participation originate from the "ladder of citizen participation" from Sherry Arnstein, a conceptual model that illustrates the different levels of citizen involvement in decision-making processes. At the level of informing, citizens are provided with information about decisions made or planned, where the information flow is one-way, with little opportunity for feedback [15]. At the level of consultations, decision-makers and planning officials seek input from citizens through surveys or public inquiry [16]. However, there exists no requirement to act upon citizen input and recommendations, except for providing a written response. Finally, active participation in the planning process is intended to exemplify democratic decision-making, granting citizens and stakeholders the authority to advocate for their individual or shared interests [17].

3. RESULTS

Desk-based research of the recent policy framework supporting participatory planning in establishing new urban governance regimes revealed that Serbia recently adopted a cycle of documents that anchor participatory action at all levels of decision-making.

Citizen participation is traditionally recognized in the Planning and Construction law [18] through early public inquiry and public inquiry on the draft plan. With the opening of Chapter 22 – Regional policy and coordination of structural instruments [19] as part of the EU accession trajectory, and by signing the Additional Protocol to the European Charter of Local Self Government on the right to participate in the affairs of a local authority (2018) [20], Serbia has initiated the formation of the new cycle of planning documents in line with the EU Cohesion Policy for the period 2021-2027.

Planning systems law from 2018 [21] is considered a “pioneer” in harmonizing the new system of public policies with the EU. It states that “...participation of interested parties and target groups, citizen associations or business entities, civil society organizations, scientific-research, professional and other organizations, as well as state representatives” is obligatory in the process of adopting public policies (Article 34). The Regulation on the methodology of public policy governance, analysis of the effects of public policies and regulations and the content of individual public policy documents from 2019 [22], Local self-government law adopted from 2021 [23], and Gender equality law from 2021 [24] provide a framework for inclusion of citizens in decision-making processes on a broader level by supporting equal opportunities, rights and freedom to affect public policy.

Strategic objective 3 of the Sustainable urban development strategy of RS until 2030 [25] *Societal Well-being* advocates for increasing the level of transparency in the decision-making process in urban development through:

1. Raising the awareness of citizens and stakeholders about their right to be included in the decision-making process through informing, consultation and active participation methods,
2. Strengthening social responsibility and balancing public and private interests in decision-making processes,
3. Improvement of participation procedures through the implementation of e-participation, referendums, public-private dialogue, public consultations, citizen panels, citizen councils, citizen initiatives,
4. Evaluation and dissemination of good practice examples of participatory planning.

Content analysis of the policy framework suggests a considerably stronger role of public participation in decision-making processes after 2018. On the other hand, the results obtained from the analysis of semi-open questionnaires, local planning documents and web portals of cities suggest the need for expanding the framework for participatory action at the local level of decision-making (Figure 2).

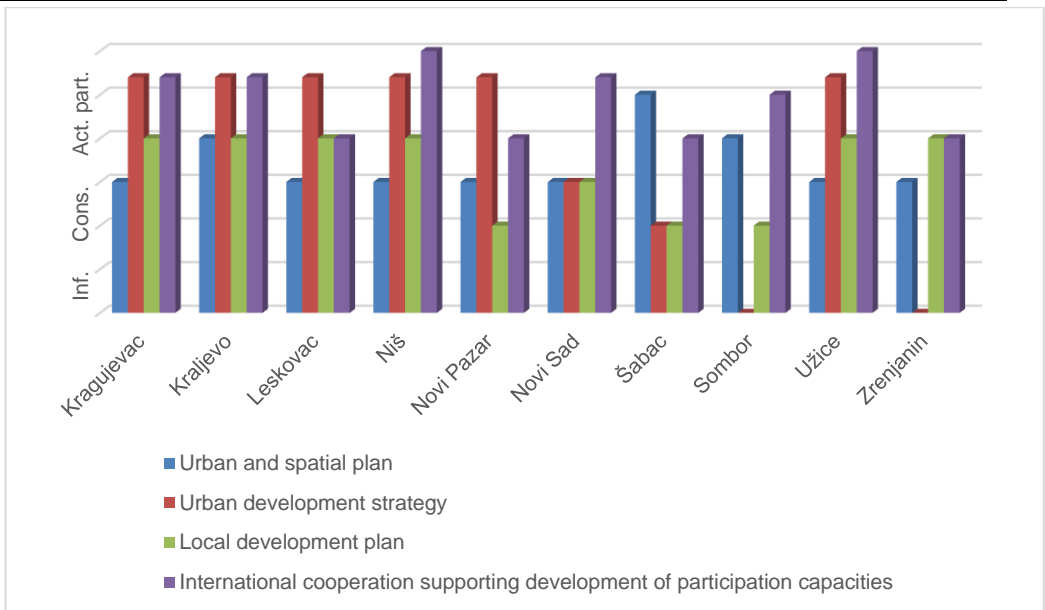


Figure 2. Descriptive chart representing qualitative data on public participation in local planning processes, source: Authors' elaboration of questionnaires' results and documents from the local administrations' web portals

The accumulated results from the semi-open questionnaire and analysis of plans, reports from the public inquiry and strategies at the cities' web portals point out that most of the cities have limited experience in facilitating active citizen participation. The engagement with citizens usually remains at the level of informing and consultations through traditional methods of early public inquiry and public inquiry. Cities of Kragujevac, Kraljevo, Niš and Užice showcase higher levels of active citizen participation that evolved through the processes of local sustainable and integrated urban development strategies formation. In contrast to traditional plans, strategy formation enabled greater flexibility in participation processes [26]. The flexibility is reflected in the testing of "alternative" participation methods that, among else, included: advertising the strategy document via info points in pedestrian areas of Kraljevo and through internet presentations at the web portal of the city administration (Integrated urban development strategy of the inner area of the city of Kraljevo); consultations with citizens and stakeholders through discussion groups or via internet consultations (Integrated urban development strategy of the city of Kragujevac); or, actively encouraging citizens to develop their ideas by drawing on the city map in the method called "Design workshop" (Integrated Urban Development Strategy for the Inner City of Užice). The findings are further "broken down" to understand how cities perform at each level of participation, further presented through exemplifying quotes:

At the level of *informing*, the results obtained from questionnaires and planning documents gathered from cities' web portals (specifically, reports derived from a public inquiry on the draft plan) reveal that all practitioners utilize the conventional approach of announcing planning initiatives in newspapers. Still, as one participant at the workshop in Kraljevo noted,

"...this form of engagement does not reach diverse groups of citizens that might be directly affected by the planning solution" (Practitioner 3, Workshop in Kraljevo).

Conversely, the endeavours of planning practitioners to better inform the public played a pivotal role in establishing a conducive environment for learning and experimentation, leading to open and inclusive participation processes. The cities of Sombor, Šabac, and Kraljevo exemplified the process of informing citizens and stakeholders about the planning initiative through semi-open questionnaires, showcasing instances of involving diverse local groups at the initial stages of the planning process. Planning professionals from the city of Sombor reached out to establish collaboration with elementary and high educational institutions, healthcare institutions, cultural centres, sports unions, and religious institutions in the formation of the Detailed Regulation Plan for the central area “Venac” in Sombor [27]. In addition, they engaged in communication with minorities (i.e., Roma population) and local citizen associations in the formation process of the Detailed Regulation Plan for “Bački Monoštor” – Roma population settlement [28]. Methods used in these cases are public forums and public presentations in sub-municipality units during the early public inquiry of planning processes. According to the local practitioner, these actions:

“...contributed to accurate and timely inputs to the analysis of the current state in local settlements, further affecting the compliance with norms and standards for the planning of services of general economic interest” (Practitioner 2, Questionnaire).

At the level of *consultations*, the representatives of the city of Užice spoke about an example where they attracted the participation of the wider population in the process of Local development plan formation by informing citizens via post:

“...we initiated communication with the wider public via sending information about the local development plan in communal bills via post to almost 20.000 citizens” (Practitioner 10, Workshop in Kraljevo).

According to the city representative, this initiative yielded over seven hundred suggestions and complaints during the later stages of plan formation, thereby enhancing the receptiveness of the proposed solutions by the public. At the level of *active participation*, the city of Kraljevo representative pointed out that engagement of the wider public and representatives of grassroots organizations in the process of local sustainable urban development strategy formation affected the selection of projects that were tailored according to the real needs of the local community. As they noted:

“...participatory action with representatives of public enterprises, citizen associations, private investors and other stakeholders at each step of the strategy formation contributed better applicability and realistic scope of the strategy, that further resulted in wide public acceptability of the individual projects that evolved from the strategy [over 250 projects]” (Practitioner 7, Workshop in Kraljevo).

The practitioner categorised this process as “active participation of citizens and stakeholders” due to the possibility to re-evaluate the strategic goals of the document within a collaborative setting.

4. DISCUSSION

A new cycle of policy in Serbia supported through the EU integration process evolves around the discourse on common values and public interest in the domains of sustainable development, social wellbeing, sustainable forms of commuting, climate change adaptation, green and low carbon development and economy,

environmental protection and disaster risk reduction poverty, and human rights. However, the adoption of the policy does not guarantee its implementation in practice [29]. Having that in mind, this research contributes to the identification of reflective actions through the application of different participatory methods in practice to enable discussion about real problems, common values and sustainability transition pathways [30]. This approach is important for examining the local context in Serbia, which is characterized by a lack of public dialogue, an ineffective response to the polarization of society, a weak fight against corruption and the general weakness of institutions [31].

The research results point out several critical points for developing participation practices in Serbia. Participation at the level of informing and consultations in a traditional form of the newspaper letter and public inquiries are insufficient generators of change [32]. The examples of “alternative” informing and consultations gathered through the research contributed to the understanding of existing capacities for longitudinal, integrated, sustainable and resilient urban development requires a re-evaluation of traditional relations and decision-making hierarchies towards more inclusive practices that rely on local knowledge of both experts and non-experts.

Active participation is intended to empower citizens and stakeholders, enabling them to creatively express their knowledge and experiences. The ultimate goal is for participants to cultivate a sense of personal responsibility toward implementing the adopted solutions, which is crucial in the process of sustainability transitions [33]. It should be noted that citizen participation and stakeholder involvement at the level of active participation in researched cases was predominantly incentivised and financially supported through the technical assistance of international donor organisations. The existence of technical and financial support contributed to better visibility of planning processes, the expertise of the staff facilitating participatory processes, as well as wider dissemination of participation results. Secondly, what is common to all of the analysed cases is that practitioners associate their participatory work with personal, besides professional efforts, recognising the complexity of plans’ thematic area and the necessity to involve diverse community groups.

5. CONCLUSION

Present-day discussions concerning urban matters at the EU level, exemplified by initiatives like the European Green Deal, emphasize the necessity of enhancing the participation capabilities of local communities and stakeholders. This emphasis aims to facilitate a smoother transition towards more efficient modes of mobility, the utilization of energy resources, social inclusion, green and low-carbon energy, and the development of a green economy in a bottom-up approach. Despite the notion that public participation is formally established as a normative basis that guarantees the rights of the public to participate in planning and development processes since the 1950s [34], a local culture of participation is still strongly anchored to the paternalistic regimes of state regulation and institutional setting. Local “culture of practice” in citizen participation and urban planning includes nowadays obstacles derived by wider processes of neoliberalization that imply more flexible procedures to accommodate market needs, frequent changes of urban legislation, deregulation, and privatisation to maximising investors’ profits. This trend leaves limited access to

real-life participation of all citizens, especially worsened during the Covid-19 pandemic [35, 36, 37]. From the socioeconomic and environmental point of view, citizens too often remain unheard of in urban development processes even before the pandemic. There is the need to include citizens in planning processes but within a more solid new urban governance strategy.

The potential of Serbian cities to follow up the sustainability transition may further rely on the planning practitioners' experience in "working under uncertainty" under current conditions [38]. The widened policy framework supporting public participation provides a base for further empirical research and testing of innovation through active participation to seek new opportunities enabling integrated and sustainable urban development.

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