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Methodological Approach to the Elaboration and Implementation of the Spatial-Urban Plan for the Special Purpose Area: Case-Study of Infrastructure Corridor of Highway E-80, Section Nis-Merdare, Serbia

Nebojsa Stefanovic, Sasa Milijic, Natasa Danilovic Hristic

Abstract—Spatial plan of the special purpose area constitutes a basic tool in the planning of infrastructure corridor of a highway. The aim of the plan is to define the planning basis and provision of spatial conditions for the construction and operation of the highway, as well as for developing other infrastructure systems in the corridor. This paper presents a methodology and approach to the preparation of the Spatial Plan for the special purpose area for the infrastructure corridor of the highway E-80, Section Niš-Merdare in Serbia. The applied methodological approach is based on the combined application of the integrative and participatory method in the decision-making process on the sustainable development of the highway corridor. It was found that, for the planning and management of the infrastructure corridor, a key problem is coordination of spatial and urban planning, strategic environmental assessment and sectoral traffic planning and designing. Through the development of the plan, special attention is focused on increasing the accessibility of the local and regional surrounding, reducing the adverse impacts on the development of settlements and the economy, protection of natural resources, natural and cultural heritage, and the development of other infrastructure systems in the corridor of the highway. As a result of the applied methodology, this paper analyzes the basic features such as coverage, the concept, protected zones, service facilities and objects, the rules of development and construction, etc. Special emphasis is placed to methodology and results of the Strategic Environmental Assessment of the Spatial Plan, and to the importance of protection measures, with the special significance of air and noise protection measures. For evaluation in the Strategic Environmental Assessment, a multicriteria expert evaluation (semi-quantitative method) of planned solutions was used in relation to the set of goals and relevant indicators, based on the basic set of indicators of sustainable development. Evaluation of planned solutions encompassed the significance and size, spatial conditions and probability of the impact of planned solutions on the environment, and the defined goals of strategic assessment. The framework of implementation of the Spatial Plan is presented, which is determined for simultaneous elaboration of planning solutions at two levels: the strategic level of spatial plan and detailed urban plan level. It is also analyzed the relationship of the Spatial Plan to other applicable planning documents for the planning area. The effects of this methodological approach relate to enabling integrated planning of the sustainable development of the infrastructure corridor of the highway and its surrounding area, through coordination of spatial, urban and sectoral traffic planning and design, as well as the participation of all key actors in the adoption and implementation of planned decisions. By the conclusions of the paper it is pointed to direction for further research, particularly in terms of harmonizing methodology of

planning documentation and preparation of technical-design documentation.

Keywords—Corridor, environment, highway, impact, methodology, spatial plan, urban plan.



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