

THE FUTURE OF TOURISM THROUGH A GREEN DEVELOPMENT STRATEGY

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Abstract

Big changes are inevitable. The European Commission have made clear that environmental sustainability should be at the core of the response to the pandemic crisis. In this paper we analyze sustainable tourism as a green development strategy in order to determine ways to adapt to the changes that have taken place in the recent period, as a part of the sustainable tourism concept. Positive and negative aspects of sustainable consumption were analyzed. The positive effects of green areas in terms of human and ecology will be mentioned. We will analyze the possibility of implantation of green solutions to improve the tourist potential of the city.

Key Words: change, environmental sustainability, green areas, green development, sustainable tourism

JEL classification: Z32, L26, Q13

Introduction

In these turbulent times, no prediction can be accurate and it can be said with certainty that it will be achievable. According to previous indicators, the only thing that can be done in the future without a futile and failed investment in tourism, due to unpredictable circumstances, such as global crises (pandemics, wars, inability to travel abroad, etc.), is to improve the space within its borders and make it more sustainable for tourism.

Accordingly, the main hypothesis is that the tourism of a place would be more sustainable and it is necessary to connect attractive locations and

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focal points and spaces with routes, in accordance with the possibilities, blue-green corridors, in order to get more environmentally friendly spaces. This will be in line with the new world agenda and paradigm that is inevitable in the future, and all world aspirations, strategies and plans are directed towards that goal in the future. This has been the case for many years, while after the pandemic, it became even more explicit and ultimate. The latest research, as well as the European Commission, believes that the green agenda is something that is most important for the future development and recovery from the pandemic, and thus the future of tourism, which is extremely at a loss due to all these circumstances. “The Commission has reaffirmed its commitment to the Green Deal, including in the Recovery Plan put forward on 27 May. Member States such as France and Germany have made clear that environmental sustainability should be at the core of the response to the pandemic crisis” (Engström, 2020, p. 2).

The research tends to show that it is possible on the example of Serbia and the case study of the city of Novi Sad, to show that the sustainability of tourism is built on ecological progress and improvement of the microclimate. We will analyze the possibility of implantation of green solutions to improve the tourist potential of this city, in the context of comparative urban research. The goal is thus to enable the future and survival of tourism in some of the following uncertain circumstances. In addition to studying the literature, the method of field survey of the existing situation and noticing the potential of Novi Sad was applied in the preparation of this paper. By analyzing examples from the literature, which talk about planning cities according to bioclimatic principles, comparative analysis, and then by synthesizing the obtained results, the criterion of valorization of Novi Sad in terms of bioclimatic planning was reached. Among the most important aspects of perceiving this problem were the environmental conditions (climate, insolation, ventilation, pollution) and political and economic potentials. Natural factors are the basic determinants when considering the idea of revitalization, but its feasibility is limited by political and economic influences. “In Serbia, private and public investments are very low, while foreign direct investments (FDI) are relatively high” (Aničić, et al., 2021, p. 38).

The new insights provide a realistic evaluation of the newly emerging space as well as observation and clarification of urban processes from a new perspective that being the context of climate changes, as a relatively new but extremely influential phenomenon. The special significance of this research is in determining the uncontrolled transformation of many

settlements and the ways in which they lost their original characteristics. The results could be useful in further planning in overcoming some of the negative consequences of climate changes.

The Unpredictable Future of Tourism and Green Infrastructure

Predicting the future is ungrateful and mostly impossible. It is especially not possible for it to be precisely accurate because human behavior can often be unpredictable. However, we must be aware of some dangerous predictions, which, if realized, will be catastrophe from which there is no going back. If we accept this assumption, future generations are in a worse position than us, and this is why we should pay attention to our influence on the moral beliefs and frameworks of the descendants of humanity, which are already influenced by, among other things, corporations (Stojanović & Aldag, 2019). “Due to the imbalance that exists between countries in relation to the levels of national environment control, the rich nations, which have relatively strict ecological legislation, export their hazardous waste to the poorer countries, in which the ecological legislation is relatively weak” (Stojanović & Lošonc, 2017, p. 399).

The saturation with branded places and symbols is increasingly pronounced, thus opening up the chance to highlight and demand for authentic and different places of branded local character (Stojanović & Aldag, 2019). “The tourism sector is constantly changing due to its ability to be creative and use new ideas, its sustainability and technological initiatives. Sustainability in tourism most often refers to environmental initiatives, but it also includes resource management in an efficient way” (Stojanović, 2021, p. 283).

Climate change, pandemics, wars and other contemporary challenges, such as extreme heat, air pollution, etc. They point out that tourism will have to follow world trends and paradigms in the future, and that the main global problem now is solving environmental problems. In line with this narrative, tourism cities will need to focus their capacities, research and strategies on ecology and sustainable supply. One of these segments are the blue-green routes and corridors that will connect all the important points and elements, the tourist offer of one city or some other area. “Sustainable urban organization and sustainable urban design create places of distinctive character that meet the standard requirements of functionality, at the same time attracting and ennobling with their uniqueness, atmosphere or beauty,

connecting people and space, movement and urban form, natural and created environment” (Stojanović & Đenadić, 2019, p. 396).

Green infrastructure is a term from the end of the twentieth century, which originated in America and which implies equal inclusion of the natural environment in the planning, design and adoption of legal acts on ways and plans of land use. “If the residuals of open streams and fragments of vegetation (forests, meadows, shrubs) are connected with the green line structures that comprise paths (walking, cycling), they form „blue-green“ corridors, with the following functions: mitigation of the „heat island“ effect, terrain drainage, sports and recreation, restoration of autochthonous flora and fauna, aesthetic and visual effects” (Ristić et al., 2013, p. 19).

Analysis of previous studies, plans and places that have the potential for green and sustainable tourism in Novi Sad

According to the Tourism Development Strategy of the Republic of Serbia 2016–2025, eight points of development have been recognized in Serbia as a product for a tourist destination: city tourism, events, mountain tourism, Spa/Wellness, thematic routes, rural tourism, cultural heritage and MICE (Program razvoja turizma grada Novog Sada za period 2018-2022. godine, 2018). Through our proposals we fit perfectly into a number of these key points.

Cultural and historical ambient units in Novi Sad, such as the Almaški region, the protected old town, the Petrovardin fortress with its suburbs, can be envisaged as pedestrian zones and connected with green corridors, following the example of world capitals and through the mentioned planning documentation, which would contribute to ecological and tourist sustainable development.

Infrastructure facilities and places in Novi Sad that have the potential for connection by green corridors:

1. Infrastructure facilities have a certain construction ban regime where the land is used as linear greenery, agricultural, intra-block, park, etc. The line greenery also includes tree-lined plantations in Novi Sad, of which the existing ones can certainly be expanded and new ones can be added to them.
2. On the left bank of the Danube, there is the most important highway in this area along the Subotica railway from the E - 75 highway to the Danube, which connects with the bridge. The emphasized importance

of this direction is reflected in the new administrative axis on the Danube zone, which opens the possibility of direct connection of the peripheral zones of the city on the northern side. The role of the direction with central functions must be enriched with green areas as the axis of the new network of greenery towards residential areas (Tišma et al., 2018).

Figure 1: *Places in Novi Sad recognized in the plans as potentials for green corridors*



Source: *Author*

All public areas, whether they are linear and extend continuously or in the form of geometric figures such as squares, intersections, hubs, terminals, etc., need to be greened and made pleasant places to concentrate movement, i.e. as static points. Preference for competitive solutions should be given to those that have a microclimate of the leading component in their concept. The General Plan of the City of Novi Sad singles out and recognizes these areas as the bearers of the green network of the city. The railway corridors in the urban fabric are planned as connections, among other things, to the work zones, which will connect the industrial track in the port zone and in Petrovaradin. The green corridors will follow the mentioned railways, and it is recommended to expand along them, as protection, contributing to a more favorable microclimate and as a new offer for recreation and this type of tourism, either as basic or accompanying.

3. Vojvodina as a plain has a generally favorable configuration of terrain for active use of bicycle corridors and the network of primary city roads provides these opportunities. The extension would refer to other primary and secondary routes and their connection for the purpose of

continuity, and thus, as an element of a special new tourist offer. According to foreign trends, this type of network is the basis for recreation of the urban population, but also transport in relation to the peripheral zones of recreation, business and housing, which includes basically an even distribution of greenery within the network of trails. The basic problem of planning this type of recreation and network of trails is based on outdated plans that include the motor traffic network with the basic pattern of the network of bicycle paths, which is an example in our practice (Tišma et al., 2018), bicycle paths, green corridors, it is possible and desirable to connect the zones of recreation, business and housing, which.

Figure 2: *Bicycle, trim trail on the quay and the proposed detail of paving and greenery*



Source: *Author*

In recent years, the City of Novi Sad has been working on planning documentation and projects important for the development of green infrastructure, while a special reason for the analysis is the proclamation of Novi Sad as the European Capital of Culture 2021 and the European Youth Capital 2019, in order to contribute to already agreed projects for the arrangement of public spaces. “Analysis of the network of green paths of the city of Novi Sad, JP Urbanizam, Novi Sad, 2018” (which includes parts of the plans: “The plan for detailed regulation of Šumska Street in Novi Sad”, “The plan of detailed regulation of block VIII in Petrovaradin”, “The plan of detailed regulation of Vojinovo in Sremska Kamenica”, “Plan of general regulation of space for mixed use west of Subotica Boulevard and north of Vojvode Stepe Boulevard in Novi Sad”), it is the basis for further study of the possibilities of new green pedestrian paths, which are also planned by the General Plan, “Plan of general regulation of Liman with the University Center in Novi Sad (Official Gazette of the City of Novi Sad,

No. 23/19), “Plan of general regulation of the University Park in Novi Sad” (in public view), “Plan of general regulation of Petrovaradin with Petrovaradin Fortress” (in progress) with the implemented first-prize-winning competition solution for the pedestrian-bicycle bridge environment on the route of the Franz Josef Bridge, “Traffic study of the City of Novi Sad with the dynamics of traffic regulation - NOSTRAM” and other previous planning documentation, studies and analyzes relevant to the covered area, as well as the conditions submitted by the competent institutions.

Sunny quay, in addition to the role of protection from high water, it is arranged and used as a recreational path, or promenade. There are only unpaved walking paths whose terraces determined by park users (pedestrians and cyclists). The bike path along the Sunny Quay makes the section the longest and most popular cycling routes in Europe, 4,400 km long (so-called "Euro Velo 6" routes). The University Park has an installed station for cyclists, intended for recreation and bicycle repair.

The plan presents spatial guidelines and rules for paved areas of the park (plateaus, paths, etc.), as well as the concept of landscaping with different areas of vegetation. Accurately defined parterre arrangement of the park, with the obligatory layout of paths and plateaus and details was done through “Urban-Architectural Study of Quay Part near University Park in Novi Sad Based on Bioclimate Principles” (Stojanović et al., 2010).

According to th“Plan of general regulation of the University Park in Novi Sad (in public view), there are three main entrances to the park that are in line with the existing roads in the area. In addition to the basic pedestrian approaches to the park, the ground floor landscaping project should forms a connection between the park area and the promenade along the river. Other access routes to the park will be formed depending on the spatial arrangement of pedestrian paths within the park itself park. The park will be divided into smaller units of different sizes along the projected paths, which should be characterized by a variety of decorative types of vegetation and different parterre treatments, while preserving the ambient whole of the area.

When designing pedestrian paths, it is necessary to analyze the existing situation and keep the routes of spontaneous pedestrian penetrations, already formed in the park, as much as possible. The arrangement of vegetation along the trails is achieved by taking into account the formation

of picturesque landscapes and comfortable conditions for rest. Pedestrian communications are coordinated with nearby parking lots. Access to the park is allowed only for supply vehicles, emergency vehicles and vehicles for arranging the park.

Figure 3: *Example of how the banks of the Danube could be connected to the city by “blue-green” corridors through the University Park*



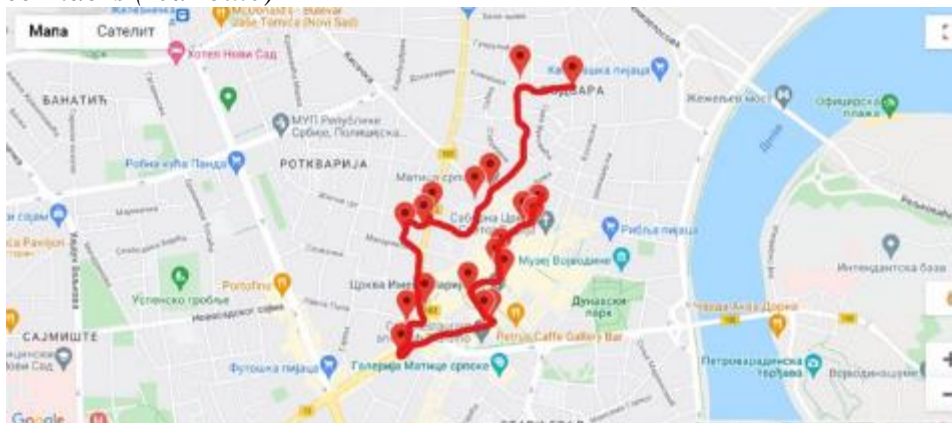
Source: *Stojanović et al., 2010*

Proposal of “blue-green” routes in Novi Sad

Examples of connecting important tourist areas of Novi Sad are given. “The Tourist Organisation of Novi Sad recommends one of the offered routes in the Map of Walking Tours. There are the Blue or Red Route that includes the central zone on the Bačka side of the City or the Yellow Route that leads to Petrovaradin Fortress.” (Novi Sad – Tourism Organisation, 2022). The so-called red, blue and yellow routes could also be united as a pedestrian zone and relocate car traffic, which is suggested by this research, as a possibility of expanding pedestrian and bicycle spaces. More precisely, the space between them, while the routes would remain the boundaries of those areas. Green routes are mostly dispersedly linear and cannot form a single closed geometric shape, so they would remain linear, but they can connect natural and recreational contents.

The Red Route is located in the old city center, so interventions to expand green corridors are not always possible, due to the specific urban form, but where possible, it is necessary to further enrich the tree lines.

Figure 4: *Tourist significant cultural heritage objects connected by green corridors (red route)*



Source: *Author*

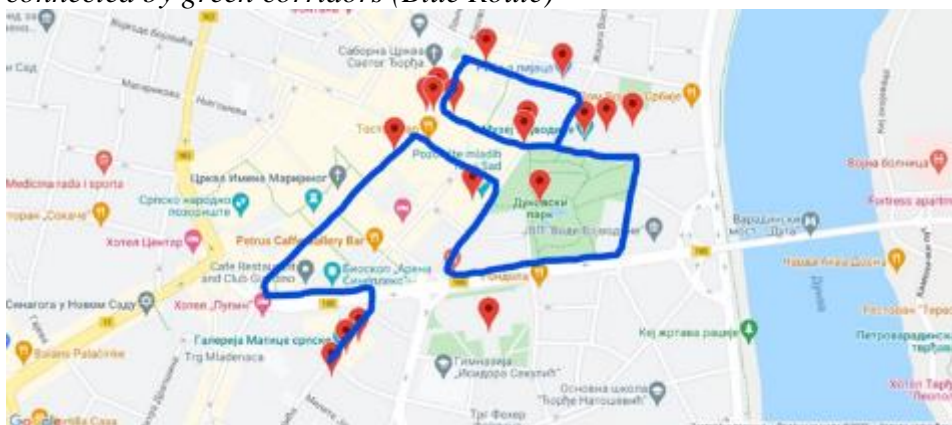
The Red Route connects:

- Gradska kuća, it was built in 1894, in Neo-Renaissance style
- Monument of Svetozar Miletić from 1939, the work of the sculptor Ivan Meštrović
- Hotel "Vojvodina", it was built in 1854, the oldest hotel in Novi Sad
- Roman Catholic Parish Church of "The Name of Mary", in the period from 1893 to 1895, it was built in Neo-Gothic style
- Cultural Centre of Novi Sad (CCNS)
- Building of the Roman Catholic Parish Office (Plebanija), built in 1808 in a baroque-classicistic style
- Laze Telečkog Street
- Grčkoškolska (Greek School) Street, it was named after the Greek school that was founded in 1770.
- Serbian Orthodox Church of St. George (Parish church) is the largest Orthodox church in Novi Sad that was built in the period from 1734 to 1740
- Grammar School "Jovan Jovanović Zmaj", a Neo-Renaissance building of the Serbian Orthodox Grammar School. It was built in 1900 in an eclecticism style
- Matica Srpska it was moved to Novi Sad in 1864
- Serbian Orthodox Church of Relocation of the Relics of St. Nicholas, the oldest Orthodox church in Novi Sad was built in 1730.

- Serbian Orthodox Church of Three Holy Hierarchs (locally known as Almaška), it was built in classicistic style in the period from 1797 to 1808
- Cultural Station "Svilara", there used to be a plant for silk dyeing at the end of the 18th century
- Slovak Evangelical Church A.V. It was built in 1886 in the style of classicism.
- Greek Catholic Church of Saint Apostles Peter and Paul, it was built in 1820 in classicistic-baroque style
- Újvidéki Színház (Novi Sad Theatre), it was founded in 1974
- The Church of Assumption of the Holy Mother of God – The Assumption Church, a one-nave baroque building dating back to 1776
- Reform Christian Church, it was built in 1865 in neo-Gothic style with the elements of classicism
- Novi Sad Synagogue, it was built in 1909 in the Hungarian Secession style.

The Blue Route is also located in the old city center, but the figure that is formed is less compact than the Red Route, and there are more spaces and possibilities for adding tree lines for the extensions of the green corridors.

Figure 5: *Tourist significant cultural heritage objects in downtown connected by green corridors (Blue Route)*



Source: *Author*

Blue Route connects:

- Zmaj Jovina Street, the main street in the pedestrian zone
- Monument of Jovan Jovanović Zmaj

- Orthodox Bishop's Palace, built in 1901 in Serbian-Byzantine style
- "At the White Lion's", the baroque house that was built in 1720.
- Dunavska (Danube) Street, one of the oldest streets in the car-free zone that connects the bank of the Danube and Zmaj Jovina Street
- City Library, founded in 1870. It is one of the largest libraries in the country
- Foreign Art Collection, it contains a part of the legacy of Dr Branko Ilić created in the period from the 16th to 20th century
- Youth Theatre, it was founded in 1932 as the first puppet theatre in Serbia
- Dunavski (Danube) Park, the monument of nature
- Museum of Vojvodina, the largest museum institution in Vojvodina
- Museum of Contemporary Art of Vojvodina
- Riblja pijaca (Green Market) - Fish market, it is the oldest market in the city
- Building of the Provincial Government and Assembly of the Autonomous Province of Vojvodina (Banovina building), it was built in the period from 1936 to 1939
- "Matica Srpska" Gallery, the richest gallery of Serbian art of a recent age
- Pavle Beljanski Memorial Collection
- Gallery of Fine Arts - Endowment Collection of Rajko Mamuzić

Figure 6: *Tourist significant objects in Petrovaradin connected by green corridors (Yellow Route)*



Source: *Author*

The Yellow Route connects:

- First Petrovaradin Fortress, never conquered, Petrovaradin Fortress the "Gibraltar on the Danube", was built in the period from 1692 to 1780
- Chapel of Saint Apostles peter and Paul, Serbian Orthodox church (chapel) built in 1922
- House of Josip Jelačić
- Belgrade Gate, it was built in 1753
- Roman Catholic Church of Saint George, built in the period from 1701 to 1714 in neo-Renaissance style
- Clock Tower
- Fortress terrace, Officers' pavilion, a baroque style building, was built from the beginning of 1718.
- Planetarium, Novi Sad astronomical observatory at Petrovaradin Fortress
- Underground military galleries, a four-storey communication-defence system that is 16 km long is a unique attraction of Petrovaradin Fortress
- City Museum of Novi Sad, at the upper plateau of Petrovaradin Fortress
- Art Circle Association, this is the largest permanent art colony in the world
- Leopold's Gate, with the motto of the Hapsburg Monarchy "VIRIBUS UNITIS"
- Atelier 61, institution for production of art tapestries

Figure 7: *Tourist significant "blue-green" and recreational areas connected by green corridors (Green Route)*



Source: *Author*

The Green Route connects:

- Hybrid University campus

- SBC – Sports Business Centre Vojvodina
- Nature Collection of the Institute for Nature Protection
- Stadium of the FC "Vojvodina" – Karadjordje
- "Štrand" bathing resort, the popular city beach that was opened in 1911.
- Sunny Quay
- Monument to the Victims of the Raid – Family

Results consideration and remarks

Based on the analyzed examples, it is concluded that Novi Sad has the potential to connect and expand the already existing “green” and recreational areas and corridors, as well as “blue” corridors that are especially related to the Danube River. The Danube is recognized in the international tourist offer as a “blue” corridor that opens up opportunities for future tourism development.

Figure 8: *Example of intersection of green corridors from Spain*



Source: *Author*

“In addition to the immediate protection of valuable natural sites, by connecting the "blue-green" corridors, a whole range of functions is created that enrich the urban space and the quality of life of citizens:

- sports and recreation (creation of new, alternative zones; formation promenades, bicycle and trim trails, playgrounds);

- ecological (mitigation of the effect of the "thermal" island; preservation of biodiversity through the possibility of restoring indigenous flora and fauna);
- aesthetic and spiritual (preserved natural sites are authentic value, in a visual and psychological sense)" (Ristić, 2015, p. 1).

The results of this research could be applicable in the cases of other cities in Serbia, since nature is highlighted in many surveys and as one of the most important reasons for tourists to visit a place in Serbia (Program razvoja turizma grada Novog Sada za period 2018-2022. godine, 2018). Offering tourists an ecologically correct environment and accompanying ecological routes that enable them to visit their destinations, is something that could certainly improve the offer, but also respond and fit into the world's leading trends and needs. "The European Commission has proposed a recovery plan, 'Next Generation EU', with the Green Deal at its core." There are many uncertainties in these turbulent times. Preliminary descriptions and conclusions can still be useful" (Engström, 2020, p. 1).

Conclusion

Availability and affordability as well as functional diversity of categories greenery increases the number of users and tourists (JP Urbanizam, 2018). It has been confirmed before that tourism is promoted in this way, and investing in the future is a task of sustainability. In general, in the form of a conclusion, we can establish general recommendations arising from research and potential projects for tourism development through various funds for Serbia:

1. promotion of tourist destinations and tourist areas of Serbia
2. education in tourism
3. preparation of planning documentation in accordance with the law governing the field of tourism
4. development of planning and project documentation
5. arranging construction land and building / improving the existing communal infrastructure as a basis for the development of tourist capacities and facilities
6. arrangement of public areas
7. arrangement of land intended for general recreation and procurement of accompanying equipment

8. installation of tourist signalization, reconstruction, construction and equipping of tourist infrastructure and facilities of special importance for the functioning and development of tourism

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