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# Assessing Environmental Indicators for Sustainable Tourism Development in Rural Areas: A Case Study of the Ravni Kotari Region, Littoral Croatia

## Abstract

In the context of global environmental changes, there is an increasing emphasis on analysing various activities to promote sustainability. As tourism has evolved, it has adopted certain principles and goals that align with the principles of sustainable development. This research was conducted in Ravni Kotari, a rural region in the central part of Littoral Croatia, located in the hinterland of well-established coastal tourism destinations in Zadar County. Although this area is still in the early stages of tourism development, a noticeable increase in tourism activity is observed annually. Simultaneously, Ravni Kotari is rich in natural heritage, safeguarded by national legislation and the Natura 2000 network. In this context, the paper aimed to assess environmental indicators but also to determine the natural values integral to tourism purposes. To achieve this, a survey was conducted using a questionnaire targeting the local population, tourists, and relevant stakeholders. The findings offer insights for policy planning and more effective environmental and tourism management.

**Keywords:** environmental indicators, Natura 2000, Ravni Kotari region, rural destination, sustainable tourism

## 1. Introduction

Indicators of sustainable tourism encompass quantitative time series data, serving the fundamental purpose of illustrating the cause-and-effect relationship between tourism and the environment (United Nations World Tourism Organization [UNWTO], 2004). These indicators play a crucial role in supporting tourism destination management by identifying the specific impacts of tourism and facilitating necessary actions before tangible problems arise (Krce Miočić et al., 2018). This customisation not only enables a destination to comprehensively and continually monitor its progress but also allows for comparisons with other destinations (Lozano-Oyola et al., 2012).

Despite the growing adoption of existing indicator sets, it remains uncertain whether they have conclusively achieved their intended goals (Font et al., 2021). Nevertheless, these sets have effectively defined the pillars of sustainable tourism, prominently featuring environmental, economic, socio-cultural, and institutional dimensions of sustainability. Within these dimensions, Hunter and Shaw (2007) emphasise the critical role of the environmental dimension, underscoring the ecological footprint indicator as fundamental for gauging sustainable tourism. The adaptability of sustainable tourism, grounded in the concept of ecosystem adaptability, is intrinsically linked to the notion of the carrying capacity limit of the ecosystem (Farrell & Twining-Ward, 2005). Furthermore, the application of sustainable tourism indicators must be approached with consideration for various destination types and levels of tourism development. Blancas et al. (2010)

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observe that international research on indicators has predominantly focused on developing destinations, with less attention directed toward the measurement and application of indicators in established or developed destinations. Klarin et al. (2022) highlight that developing destinations often rely on basic tourism movement indicators, such as arrivals and overnights, without adequately addressing the issue of the destination's carrying capacity.

This study assesses environmental indicators crucial for sustainable tourism in Ravni Kotari, a rural region in Zadar County, Croatia. The area, influenced by nearby coastal tourism hotspots, is experiencing growth in luxury house rentals and other tourism activities and is rich in natural heritage within the Natura 2000 network. This paper also aims to identify the natural values of Ravni Kotari and explore their sustainable integration into tourism development.

## 2. Utilisation of sustainable tourism indicators

In the creation and selection of relevant indicators for sustainable tourism, existing systems or sets defined by global organisations, such as the United Nations World Tourism Organisation, the European Union, and the Global Sustainable Tourism Council, are commonly utilised (Klarin, 2017). Their primary objectives include enhancing destination management efficiency, identifying key areas of destination sustainability, and facilitating access to data, collaboration, and knowledge sharing, ultimately enabling comparisons of destination sustainability levels. Despite their widespread application and contribution to practical endeavours, certain constraints remain. Chief among these challenges is the difficulty in obtaining necessary data for calculating specific indicators, where the data are either nonexistent, irregular, or incomplete (Blancas et al., 2016; Mikulić & Kožić, 2011; Krce Miočić et al., 2018). Moreover, these indicators are frequently deemed difficult to apply, challenging to interpret, and not always aligned with achieving set goals (Mascarenhas et al., 2015). Ko (2005) points out the importance of involving all destination stakeholders throughout the development, selection, and application of indicators. The public sector, in particular, plays a vital role in establishing and implementing development policies, providing essential infrastructure, and setting administrative standards in tourism (UNWTO, 2004; Wagenseil et al., 2022). However, the voluntary nature of data collection often poses a challenge. Hence, Klarin et al. (2022) advocate for the mandatory collection of necessary data for calculating sustainable tourism indicators, especially for public institutions involved in tourism.

The development and creation of relevant indicators in a destination is a complex, interdisciplinary, multi-stakeholder, and multi-phase process (Torres-Delgado & Saarinen, 2014). It requires the use of various methods, including working meetings, workshops, questionnaires, focus groups, interviews, and complex statistical techniques. For example, Choi and Sirakaya (2006) and Rio and Nunes (2012) used the Delphi method and panel discussions with academic experts and tourism stakeholders to select relevant indicators at the local and regional levels. Based on expert opinions, Lozano-Oyola et al. (2012) proposed and tested a composite index as a planning tool in the observed destination. In a research by Mascarenhas et al. (2015), stakeholders evaluated proposed indicators (previously selected using Monte Carlo simulation and sensitivity analysis) through focus groups and workshops. Nevertheless, the abundance of available indicators may sometimes lead to confusion and difficulties in their understanding and application (Agyei-waah et al., 2017).

### 2.1. Sustainable tourism indicators in rural areas

Environmental sustainability has become the primary goal of sustainable tourism in rural areas (An & Alarcón, 2020; Widawski et al., 2023). Numerous studies have explored the application of sustainable tourism indicators in rural areas, examining various aspects of environmental, social, and economic dimensions (Blancas et

al., 2011; Diéguez-Castrillón et al., 2022; Park & Yoon, 2011). The perceived sustainability of tourists and other stakeholders in rural areas is also aligned with environmental concerns (Iniesta-Bonillo et al., 2016; Sánchez-Fernández et al., 2019; Guizzardi et al., 2021).

Sánchez-Ollero et al. (2022) concluded that rural accommodations in Spain that implement environmental sustainability measures have a positive impact on customer environmental awareness. Environmental attitudes were related to energy and water conservation, as well as the management of establishments of this type. Marzo-Navarro et al. (2015) engaged global experts and residents in Argentina to assess the sustainability of rural tourism, with a focus on local involvement in planning and development. In summarising these studies, it is evident that indicators play a crucial role in development planning and monitoring, while also contributing to diverse fields of research beyond the immediate context of tourism sustainability.

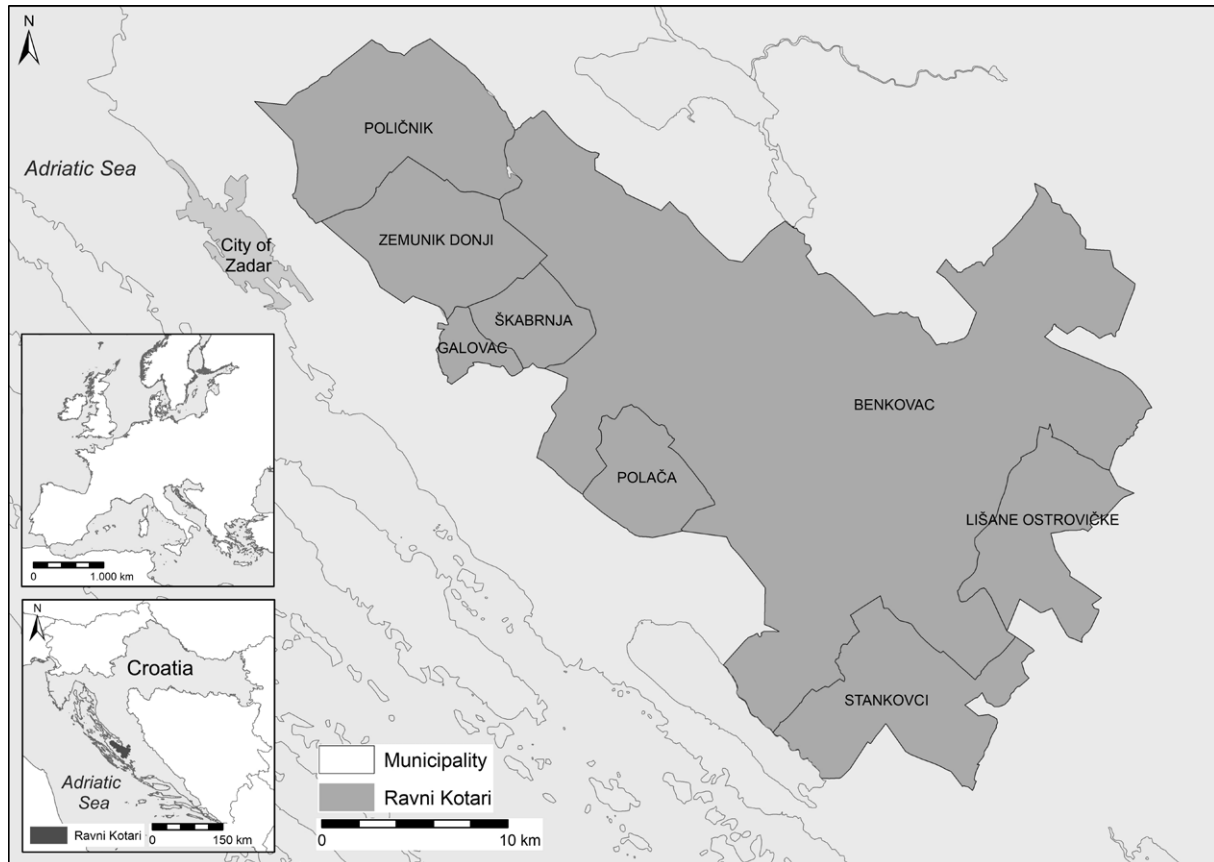
In Croatia, the concept of sustainability within the realm of rural tourism has been the subject of several studies (Bartoluci et al., 2015, 2016; Bušljeta Tonković, 2019; Kantar & Svržnjak, 2017). However, these studies, while informative, did not delve into the dimensions of sustainability nor analyse recommended indicators. In a distinctive approach, Vojnović (2013) not only calculated socio-cultural indicators for the rural interior of Istria but also conducted surveys and interviews within the local community. The calculated indicators suggested the sustainability of tourism in the area, with the local population expressing an overwhelmingly positive attitude toward tourism as a socio-cultural and economic phenomenon within their community. Kožić and Mikulić (2011) had previously emphasised the need to establish a system of indicators for evaluating and monitoring sustainable tourism in Croatia. Their argument rests on Croatia's substantial economic dependence on tourism, raising concerns that uncontrolled development could deplete the resources necessary for maintaining attractiveness and competitiveness in the global tourism market. Although there have been attempts to measure sustainable tourism in Croatia through initiatives like CROSTO – the Croatian Sustainable Tourism Observatory (CROSTO, 2023) - an official indicator system is still lacking.

### 3. Research area

Ravni Kotari is a physiognomic region located in the central part of Littoral Croatia (Figure 1). In the broadest sense, it covers approximately 1,700 sq km of mostly flatland in the hinterland of the City of Zadar (Blaće, 2014). For this research, we considered Ravni Kotari to correspond to eight municipalities covering the central part of Ravni Kotari: Benkovac, Galovac, Lišane Ostrovičke, Stankovci, Škabrnja, Polača, Poličnik, and Zemunik Donji. It was necessary to define these borders due to the nature of the research, which was based on quantitative data regarding tourist traffic and methodological procedures. The delineated Ravni Kotari covers an area of 830 square kilometres, encompassing 73 settlements. According to the 2021 population census, it is home to 23,247 inhabitants (Croatian Bureau of Statistics, 2022).

Ravni Kotari is a rural area with fertile land, unlike the limestone karst-dominated Littoral Croatia. Despite this, less than one-third of its arable land is cultivated due to issues such as an ageing population, small plots, unresolved property matters, outdated farming practices, war damage, and mine contamination. Positive trends have emerged over the past decade, particularly since Croatia joined the EU in 2013, with the establishment of new vineyards and olive groves, as well as the organic production of wine and olive oil. Tourists seeking authentic local food and wine experiences, as well as those looking to avoid crowded coastal areas, have started visiting Ravni Kotari. Tourist traffic has increased over the past fifteen years, reaching a peak in 2022 with 18,487 arrivals and 150,328 overnight stays (Novigrad Sea Tourist Board, 2023; Ravni Kotari Tourist Board, 2023). Although these numbers are modest, they reflect considerable growth in tourism.

**Figure 1**  
**Research area – Ravni Kotari region**



Source: Made by authors based on: Croatian Geodetic Administration (2016), European Environment Agency (2018).

## 4. Materials and methods

Empirical research on the recognition of environmental indicators for sustainable tourism development was conducted through a multi-step process. Following previous methodologies and research (European Commission, 2016; Klarin, 2017; UNWTO, 2004), a questionnaire was developed as a measuring instrument. It targeted tourists, residents, and key local stakeholders. The survey was conducted over a period of two years, with a trained interviewer facilitating the process. The goal was to gather insights from several hundred tourists between June and October 2022 and between June and October 2023, as well as from September 2022 to June 2023, for several hundred residents of Ravni Kotari. Despite the intention for random sampling, challenges arose during the research:

- 1) The local population exhibited a lack of interest and reluctance to participate, perceiving the study as a form of tourist control or inspection. Also, considering the actual level of tourism development, the possible lack of knowledge could influence their interest in participating in the survey.
- 2) Tourists displayed insufficient interest, being on vacation, and the inability to approach them directly, particularly if they were staying in isolated accommodation facilities to ensure privacy.
- 3) The low number of local stakeholders (approximately 40 in total) reflects the early stage of tourism development in this economically peripheral area. Nonetheless, these stakeholders from both the public and private sectors are key decision-makers and current providers of the limited tourism

offering. Many are newcomers to the industry and lack sufficient experience. Furthermore, some stakeholders were unavailable, as they reside in Zadar and only occasionally stay in Ravni Kotari for work. Given the small number of participants and the specific nature of the research, the data collected from stakeholders were analysed descriptively and were not included in the inferential statistical analysis.

Due to the constraints mentioned earlier, convenience sampling was employed, resulting in a total of 684 respondents: 198 tourists, 469 residents, and 17 local stakeholders. The stakeholders included three employees of tourist boards, three heads of municipalities, four members of the civil sector (NGOs), and seven private sector representatives (including wineries and small family farms). The questionnaire consisted of eight indicators to measure the perceived importance of environmental factors in sustainable tourism development, as well as five questions on the socio-economic profile of the respondent. We simplified these indicators to ensure comprehensibility across all three groups. These indicators effectively pinpointed the critical environmental concerns within contemporary tourism in rural areas (An & Alarcón, 2020; Widawski et al., 2023), particularly in relation to the quality of living. Respondents rated the indicators on a Likert scale from 1 ("Completely unimportant") to 5 ("Extremely important"), with an additional option (9) for "Cannot assess". Given the ordinal nature of the Likert scale and the convenience sampling methodology, non-parametric analysis was chosen. The Mann-Whitney test was used to assess statistical differences between the two groups – tourists and residents. While the use of inferential statistics in non-random sampling may be considered a violation, the decision was made based on the substantial sample size and the application of a robust non-parametric test, as suggested by some researchers (Hubbard et al., 2019). The statistical analysis was conducted using JASP 0.16 open-source software (JASP team, 2021).

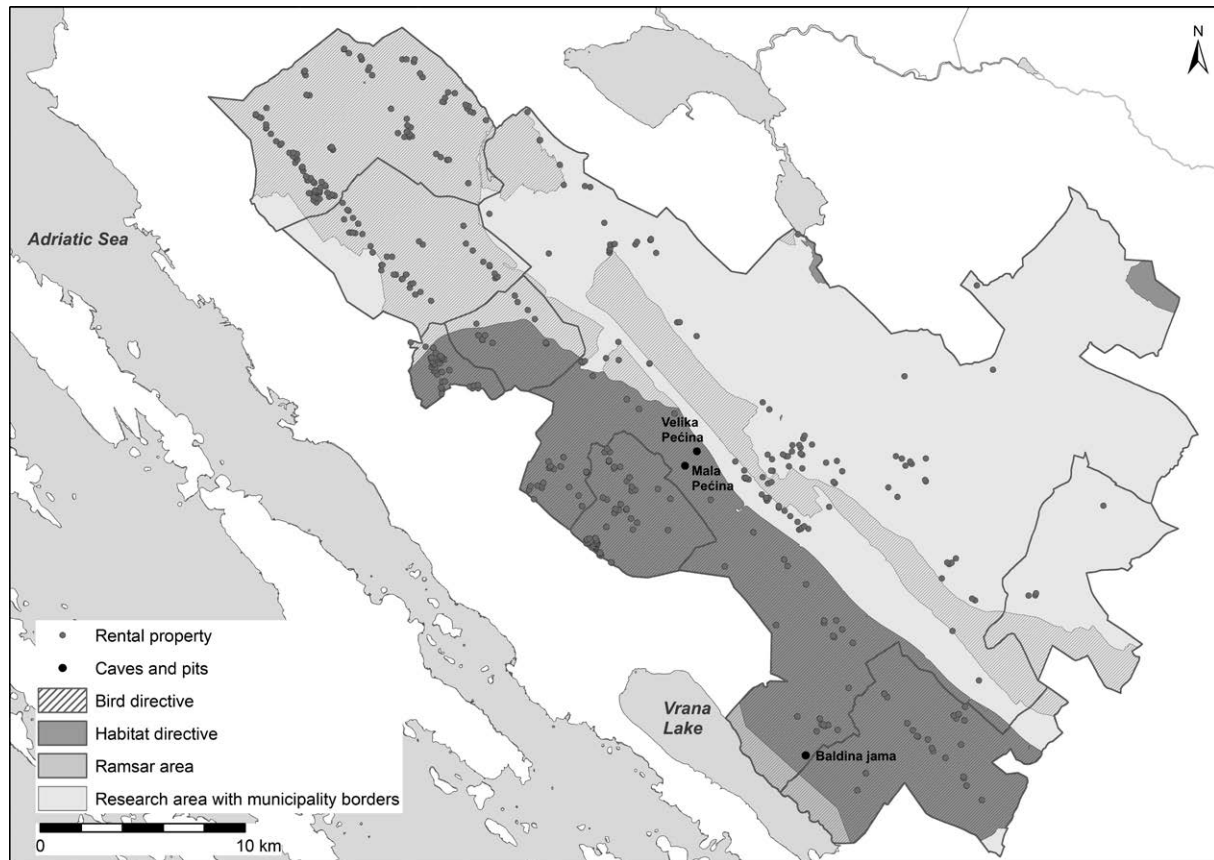
## 5. Results

### 5.1. Natural values of Ravni Kotari

Natura 2000 is the EU's ecological network, dedicated to conserving endangered species, habitat types, and their connecting corridors across 20% of the EU's territory. It encompasses approximately 27,500 sites under the Birds Directive and the Habitats Directive. In Zadar County, which includes the research area – Ravni Kotari, Natura 2000 covers 34.82% of the territory (Zadar County, 2016). National nature protection institutions, such as national parks, nature parks, or regional and county bodies like the Public Institution Natura Jadera, oversee management of these areas. Ravni Kotari, crucial for conserving endangered species and bird populations, is designated with codes HR2001361 and HR1000024 within the Natura 2000 network, adjacent to the Ramsar Convention-protected Vrana Lake, which is categorised as a nature park (Figure 2). While enhancing the area's appeal, Natura 2000 sites require rigorous assessment of planned activities to ensure environmental sustainability and conservation objectives (Šikić & Blaće, 2022).

The Republic of Croatia's Ordinance on Conservation Objectives and Measures for Target Bird Species (2020) and for Species and Habitat Types (2022) sets objectives and measures for ecological network areas (Ministry of Environmental Protection and Energy, Republic of Croatia, 2020; Ministry of Economy and Sustainable Development, Republic of Croatia, 2022). These measures are implemented through natural resource management plans, spatial planning documents, protected area management plans, plans for strictly protected species, and activities that impact conservation goals. In the Natura 2000 area of Ravni Kotari, two target habitat types – Mediterranean High Wet Grasslands (*Molinio-Holoschoenion*) and Caves and Pits Closed to the Public – and seven target species have been established (Topić & Vukelić, 2009).

**Figure 2**  
**Nature protected areas in the Ravni Kotari region and rental properties**



Source: Made by authors based on: Croatian Geodetic Administration (2015), Croatian Geodetic Administration (2016), Novigrad Sea Tourist Board (2023), Ravni Kotari Tourist Board (2023).

Eighteen target bird species were identified in Ravni Kotari, with the European Roller (*Coracias garulus*) having the largest population within this area in Croatia. In 2023, the Management Plan for the Ecological Network Ravni Kotari was approved, developed under the project "Development of the Framework for the Management of the Ecological Network Natura 2000," which was co-financed by the European Cohesion Fund. This plan covers the entire area managed by the Public Institution Natura Jadera (as of 2023).

The mosaic landscape of Ravni Kotari, with its diverse agricultural areas, grasslands, forests, and water habitats, is crucial for preserving endangered and rare plant and animal species, particularly birds. Human-influenced grasslands significantly contribute to the area's biodiversity, providing homes for plants and invertebrates, as well as serving as hunting grounds for species from nearby forests or rocky areas. These semi-natural grasslands, maintained through mowing and grazing, are a result of traditional animal husbandry practices. Historically, large areas were periodically flooded, but drainage canals were built to support agriculture (Barišić et al., 2019). Notably, the European Roller's most important nesting area is found in Croatia, where it relies on mature Poplar trees planted to combat soil erosion for nesting (Barišić et al., 2019).

Within Ravni Kotari, several speleological sites, designated as "Caves and Pits Closed to the Public," harbour specialised or endemic species that are crucial for conservation. These caves are vital for bats, serving

as maternity, hibernation, and transitional shelters during migrations (Dietz & Kiefer, 2016). Notable sites include Baldina Jama and Velika and Mala Pećina in Kličevica Canyon, with Baldina Jama being internationally significant (Mitchell-Jones et al., 2007; Rodrigues, 2015).

Rocky habitats, though scarce, are essential for owls like the Eurasian Eagle-owl (*Bubo bubo*), which nests on inaccessible cliffs or sometimes on the ground by rocks or trees (Svensson et al., 2018). The reduction of water habitats in Ravni Kotari has resulted in a few small, permanent ponds and occasional watercourses. Artificial drainage channels, when regularly maintained, support vegetation such as reeds, rushes, and sedges in shallow water or areas with high groundwater levels. While not target habitats, these aquatic environments are crucial for species like the White-clawed Crayfish (*Austropotamobius pallipes*), serving as watering places and hunting grounds for many bird and bat species. The White-clawed Crayfish thrives in lakes and rivers with sandy and rocky bottoms, benefiting from coastal vegetation that provides shelter and favourable microclimatic conditions (Maguire et al., 2011). This species is relatively resilient to poorer water quality, tolerating higher oxygen and temperature fluctuations if water hardness is high, pollution is minimal, and the bottom is not muddy (Ministry of Economy and Sustainable Development, Republic of Croatia, 2021).

## 5.2. Survey results

The survey revealed that a majority of participants (over two-thirds) were residents, predominantly female and under the age of 45 (Table 1). These findings suggest a greater inclination among younger individuals, particularly women, to participate in the survey. Additionally, more than 50% of respondents possessed a college, university, or higher degree, aligning with findings from the national study on tourist attitudes and expenditures in Croatia (Institute for Tourism, 2023).

**Table 1**  
*Sample structure*

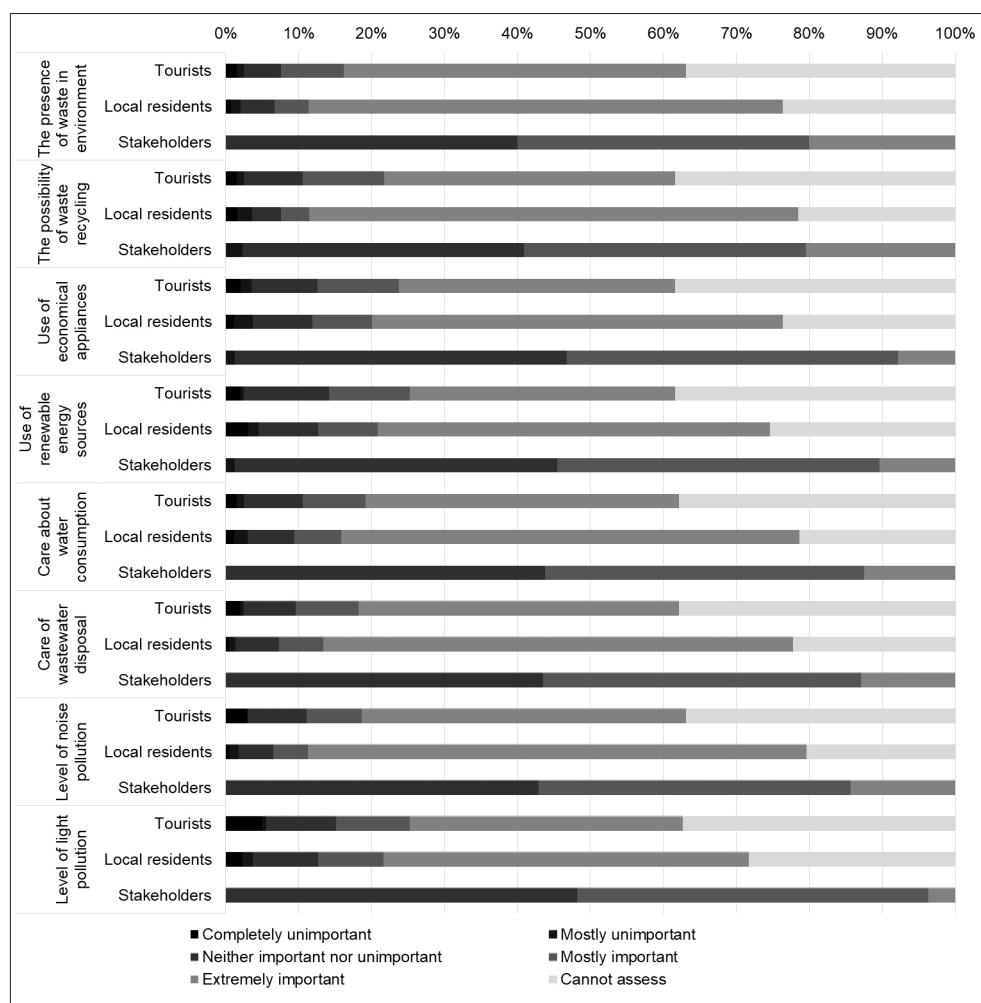
Variable	Modality	N	%
Group of respondents	Tourists	198	28.9
	Residents	469	68.6
	Stakeholders	17	2.5
Gender	Male	274	32.7
	Female	370	54.1
	Prefer not to respond	90	13.2
Age	18.0-25.0	109	15.9
	25.1-45.0	284	41.5
	45.1-65.0	194	28.4
	>65.1	21	3.1
	No response	76	11.1
Educational level	Primary school	25	3.6
	High school	187	27.3
	College/University degree/MSc/PhD	380	55.6
	No response	92	13.5
Involved in tourism (just for residents)	Yes	384	81.9
	No	85	18.1

Source: Made by authors based on: Questionnaire (2023).

To assess the questionnaire's reliability, we conducted a Cronbach's alpha test for questions utilising the Likert scale, yielding a coefficient of 0.89 with a potential variance error of 20.8%. According to Tavakol and Denick (2011), this result is deemed desirable, likely attributed to the large sample size.

Descriptive statistics, employing basic frequency analysis for three distinct respondent groups, reveal notable patterns (Figure 3). Across all eight variables, the prevailing response from both tourists and local residents was "extremely important". This suggests a shared perspective that considers all cited environmental indicators critical for sustainable tourism development. Previous research has indicated that tourists visiting rural areas tend to be, on average, more environmentally conscious (Chen et al., 2023). Additionally, a substantial proportion of residents (20–25%) and tourists (around 35%) indicated they "cannot assess" the importance of the indicators. This may be attributed to a lack of knowledge about the area as a tourism destination, from both residents' and tourists' perspectives. In contrast to tourists and the local population, stakeholders' responses predominantly fell into the categories of "neither important nor unimportant" and "mostly important". This variance could suggest a distinct perspective, emphasising financial and social aspects of tourism over environmental concerns, with stakeholders not deeming environmental issues as pivotal for sustainable rural tourism development. The small number of stakeholders also might contribute to this response pattern.

**Figure 3**  
Relative frequency of answers for the importance of environmental indicators



Source: Made by authors based on: Questionnaire (2023).

The outcomes of the Mann-Whitney test (Table 2) for the two groups reveal statistically significant differences for two variables: the possibility of waste recycling and the level of noise pollution. The reasons why

these specific variables are perceived as more critical by residents remain unclear. However, it appears that residents exhibit a heightened awareness of the need to advocate for more sustainable tourism, even more so than tourists. It is noteworthy, however, that this awareness might be influenced by the fact that 82% of residents in our sample are directly and indirectly engaged in some tourism activities. In essence, the residents' environmental awareness appears to be a result of their involvement in tourism activities and their commitment to meeting the expectations of tourists, with a focus on sustainable practices.

**Table 2**  
*Results of the Mann-Whitney test for the difference in mean ranks between tourists and residents*

Variable	U value	Z value	p-value
The presence of waste in the environment	22,248,50	-0.50	0.50
The possibility of waste recycling	19,792,50	-2.24	0.00
Use of economical appliances	21,165,00	-0.95	0.27
Use of renewable energy sources	21,007,00	-0.85	0.33
Care about water consumption	22,039,00	-0.78	0.32
Care of wastewater disposal	20,773,00	-1.41	0.06
Level of noise pollution	21,161,00	-1.79	0.01
Level of light pollution	20,105,50	-1.04	0.23

Source: Calculated by authors based on: Questionnaire (2023).

## 6. Discussion

Research in Ravni Kotari, a relatively young tourism destination, revealed varied attitudes among tourists and residents regarding environmental indicators. Residents generally have positive views on tourism due to its economic benefits (Blaće et al., 2024), while negative environmental impacts are not yet a concern. Ravni Kotari is also characterised by depopulation, migration, demographic ageing, and a lower level of socio-economic development, which are the common issues of rural areas. Consequently, there is a possibility that the resident population lacked sufficient knowledge about the research subject and Ravni Kotari as a tourism destination. Simultaneously, tourists' unavailability and disinterest in participating in research, coupled with a lack of familiarity with the area they are visiting, may have influenced their attitudes. This aligns with the perceived environmental sustainability of tourists in rural regions of Italy and Spain (Guizzardi et al., 2021; Iniesta-Bonillo et al., 2016). Locals and tourists prioritised environmental indicators more than stakeholders, likely due to their differing levels of involvement in tourism. Tourism is seen as a driver of social and economic activities, enhancing local well-being (Eusebio et al., 2014; Yousefi, 2016). Key environmental concerns identified were waste, water, and electricity management, aligning with other research (Agyeiwaah et al., 2017; Gössling, 2015; Sánchez-Ollero et al., 2022). Light and noise pollution were deemed somewhat less critical, similar to a study in the Alpine region (Wagenseil et al., 2022).

Research conducted in other European countries reveals differing experiences regarding tourism and protected sites, such as the Natura 2000 network. Getzner and Jungmeier (2002) concluded that in Austria, Natura 2000 sites led to small positive economic shifts, including increased tourism, but also resulted in instances of land use conflicts. Nationwide research in Italy, encompassing 10 Natura 2000 sites (Schirpke et al., 2018), has revealed that these sites are becoming increasingly crucial for recreational opportunities due to their biodiversity and landscape attractiveness. In Poland's Lower Silesia province, nature conservation within Natura 2000 sites and tourism/leisure activities appear to complement each other without causing significant adverse environmental impacts (Pstrozcka-Rak & Rak, 2014). However, in Slovakia, most tourism activities in Natura 2000 sites were considered to have a neutral or even negative impact on the environment (Ciapała et al., 2014). Thus, Tsiafouli et al.'s (2013) conclusion that the alignment of tourism with Natura 2000 conservation targets remains uncertain, including for the Ravni Kotari region, remains relevant.

The secondary objective of the paper was to outline the natural heritage characteristics of the area, focusing on Mediterranean High Wet Grasslands (Molinio-Holoschoenion), which are significantly represented but in average or poor conservation status according to Natura 2000. Beyond habitat degradation, poaching, especially targeting Quail (*Coturnix coturnix*) and wading birds, poses a significant threat to bird conservation in Ravni Kotari. Birds of prey and other rare species are also affected due to poaching. Preserving Ravni Kotari's biodiversity requires maintaining a favourable hydrological regime. Increased tourism and the development of accommodation facilities heighten water extraction pressure, while climate change, with its associated droughts and floods, further threatens water resources.

Rocky habitats face no recognised threats; however, caves and pits are vulnerable to mechanical damage, ornament collection, graffiti, and pollution from waste and surface water infiltration (Public Institution Natura Jadara, 2023; Topić & Vukelić, 2009). The Ravni Kotari Ecological Network Area Management Plan sets specific conservation goals and indicators, aligning with EU standards: 1) preserving agricultural areas, grasslands, and forests for target species, 2) maintaining favorable conditions for target bird species, 3) ensuring water quality and quantity for biodiversity, 4) achieving good ecological and chemical states for water bodies, and 5) preserving rocky and subterranean habitats and their species.

## 7. Conclusion

This research provided an assessment of environmental indicators for sustainable tourism development in Ravni Kotari, a rural Mediterranean area. Key challenges related to waste, water, and electricity management were identified. While these issues are not immediate concerns, they warrant caution for the future. Waste and water management, in particular, should be considered in the context of the region's natural values and protected areas.

This study contributes to the validation of relevant methodologies and indicators for sustainable tourism development. While the proposed indicators were simplified and generalised based on the literature, they covered key fields of environmental sustainability, which were identified as the most crucial pillar in rural sustainability. The study's findings have relevant implications for planning and monitoring sustainable tourism in this area. Policymakers, destination managers, and the local community must recognise the importance of preserving and valuing this space to attract tourists and offer unique experiences.

The secondary objective was to determine the characteristics of the natural heritage in Ravni Kotari. Examining these natural habitats within Natura 2000 sites revealed elements that need to be integrated into tourism management. Birdwatching, leveraging the rich avian biodiversity, is a notable tourism attraction in Ravni Kotari. Therefore, establishing effective monitoring systems for Target Species and their habitats is essential, as current data is insufficient.

This study had several limitations. Ravni Kotari is depopulated and characterised by low socio-economic development, which affects stakeholder attitudes and contributes to its overall low population numbers. This was the main reason stakeholders were excluded from the inferential analysis. As a young tourism destination, residents showed disinterest and reluctance to participate, likely due to a lack of knowledge about the research subject. Tourists, on vacation and often in isolated accommodations, were also difficult to engage. To improve sustainable tourism indicators, future research should involve experts and individuals familiar with Ravni Kotari's unique characteristics. This will aid in selecting relevant indicators and monitoring the impact of tourism.

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### Funding Acknowledgements

This work is an outcome of the scientific project "RURAL SPOT – System of sustainable tourism indicators in rural areas (IP.01.2021.08)," funded by the University of Zadar (Croatia).

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Submitted: July 04, 2024

Revised: April 11, 2025

Accepted: May 19, 2025