

THE ROLE OF ECO-TOURISM IN MITIGATING CLIMATE RISKS AND ENHANCING COMPETITIVENESS

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Abstract

Ecotourism is an important and rapidly growing sector in the tourism industry, offering unique opportunities to mitigate climate risks and enhance the competitiveness of tourism destinations. In the context of global climate change, ecotourism can play a key role in developing sustainable practices that contribute to environmental protection and the socio-economic development of local communities. This paper explores how ecotourism can be a tool for climate change adaptation, reducing negative environmental impacts while improving economic conditions in tourism regions. It focuses on successful examples of ecotourism initiatives that demonstrate how an integrated approach to ecotourism can lead to the creation of resilient ecosystems and economic prosperity. One of the key aspects of ecotourism is its ability to develop sustainable practices, such as the use of renewable energy, resource management, and biodiversity conservation programs. These practices not only reduce the carbon footprint of tourism activities, but also provide long-term economic benefits to local communities through job creation and support for the local economy. The study also examines the involvement of local communities in tourism activities as a way to improve their economic resilience and social well-being. By actively participating in ecotourism projects, local communities can gain access to new sources of income and educational opportunities, which contributes to improving their quality of life. The results show that ecotourism not only mitigates climate risks, but also increases the resilience of local economies to climate change, while providing educational and cultural benefits for tourists. Ecotourism helps to create awareness of the importance of sustainable development among both travelers and local residents, which ultimately contributes to a more harmonious coexistence between humans and nature. Ecotourism is therefore an important aspect in adaptation strategies and development of the tourism industry in the context of a changing climate. Given its potential for creating sustainable development models, this work highlights the need to integrate ecotourism into global and local strategies to combat climate change and improve the competitiveness of tourist destinations.

Keywords: Ecotourism, climate risks, competitiveness, sustainable development, environmental protection, local communities, biodiversity, renewable energy, economic growth

I. Introduction

In recent years, the global tourism industry has gained significant recognition as a vital contributor to economic development, job creation, and cultural exchange. However, this growth is accompanied by pressing challenges, particularly those posed by climate change. The tourism sector is highly sensitive to climate risks, including rising sea levels, extreme weather events, and changes in ecosystems, which threaten the sustainability of popular destinations. As these challenges intensify, there is an urgent need for the tourism industry to adopt innovative strategies that promote resilience and sustainability.

Eco-tourism has emerged as a promising approach to address these challenges, offering a pathway to mitigate climate risks while enhancing the competitiveness of tourism destinations. Defined as responsible travel to natural areas that conserves the environment and improves the well-being of local communities, eco-tourism emphasizes sustainability, education, and community involvement. By focusing on sustainable practices, eco-tourism not only reduces the negative impacts of tourism on the environment but also promotes awareness of ecological issues among tourists and local populations.

The role of eco-tourism in the context of climate change is multifaceted. Firstly, it fosters sustainable development by encouraging practices that protect natural resources and biodiversity. This includes the adoption of renewable energy sources, waste reduction strategies, and conservation efforts that can help mitigate the impacts of climate change. Secondly, eco-tourism contributes to the economic resilience of local communities by creating job opportunities and generating income through sustainable tourism activities. When local communities are actively engaged in eco-tourism initiatives, they are more likely to invest in the conservation of their natural resources, thereby fostering a cycle of sustainability and economic growth.

Moreover, eco-tourism promotes educational opportunities for both tourists and locals. Through immersive experiences in nature, travelers gain a deeper understanding of environmental issues and the importance of conservation. This increased awareness can lead to more responsible travel behaviors and greater advocacy for sustainable practices, both at home and in the destinations they visit.

Despite its potential, eco-tourism also faces challenges, including the need for effective management, the risk of over-tourism in fragile ecosystems, and the necessity for appropriate policies and regulations. Understanding the role of eco-tourism in mitigating climate risks and enhancing competitiveness requires a comprehensive analysis of its economic, environmental, and social dimensions.

This paper aims to explore the role of eco-tourism as a viable solution for addressing climate risks while enhancing the competitiveness of tourism destinations. By examining successful eco-tourism initiatives and their impacts on local communities and ecosystems, this research seeks to provide insights into best practices and strategies that can be implemented across the industry. Ultimately, this analysis will contribute to the broader discourse on sustainable tourism development in the face of climate change, highlighting the importance of eco-tourism in creating a resilient and thriving global tourism economy.

Approaches to strategy development are closely related to the analysis of complex data, which requires the use of a variety of methodological tools. These include logical modeling, inductive and deductive analysis methods, as well as statistical and economic techniques (Fig .1). These tools support the process of systematizing information and forming strong strategic foundations.

It is also important to develop coordination mechanisms and coordinated actions of all participants in the tourism industry. This will ensure a synergistic effect for the effective achievement of common goals. These measures are the foundation for an effective strategy capable of ensuring growth and sustainability both at the national and international levels, strengthening the economic basis of tourism enterprises and the entire sector as a whole.

An analysis of the current trends in the development of the tourism industry reveals a number of important issues that need to be considered when developing strategies for this sector. This involves the need to create a comprehensive regulatory framework that promotes optimal conditions for the operation of tourism and hotel enterprises, taking into account their economic, managerial and administrative contexts. Further, the emphasis is placed on strengthening the role of government regulation with the protection of the interests of all entities in this sphere. In addition, the importance of active participation of public organizations in preserving the basic

principles of tourism development and establishing cooperation between government agencies, business representatives, educational and scientific institutions is emphasized.

These findings provide the basis for a strategy of profound change that involves joint efforts by governments and the private sector to carefully examine and respond to the challenges posed by the loss of tourists, stimulate investment and develop programmes that support the growth and strengthening of the sector.

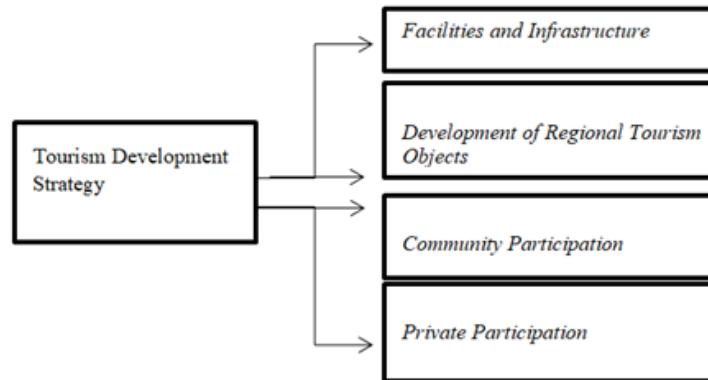


Figure 1: Tourism Development Strategy

Particular attention should be paid to the strategy aimed at maintaining stability in an unfavorable economic environment, which uses customer retention measures, including offering additional services, innovation and improving the overall quality of service, which helps to strengthen customer loyalty even in more difficult economic conditions.

On the other hand, the achieved growth strategy is used in situations where the company has limited capacity for innovative development or when the market is close to saturation. Here, we are talking about focusing efforts on optimizing current operations and maintaining the existing sales level by improving and modifying the tours or services offered.

The development of these strategies is based on an arsenal of tools that can solve the tasks set in the context of the current conditions. Such tools include: flexible pricing, service modernization, expansion of partnerships, brand strengthening, marketing and PR campaigns, as well as improving the quality of management and introducing innovations.

The expected results from the implementation of these strategies include, but are not limited to: successful achievement of objectives, increased revenues, enhanced market position, sustainable satisfaction of tourist needs, maximization of return on capital investment and enhanced competitive advantages. This leads to long-term sustainability and prosperity of tourism and hotel enterprises.

II. Methods

Creating a strategy for the eco-tourism industry is a multi-step process, with each step having a significant impact on the final outcome. Research confirms that the approach to strategic planning should be systematic and goal-oriented, with clear priorities and a well-thought-out schedule of specific actions.

At the initial stage – the intellectual stage – the fundamental principles on which the strategy will be built are formed, including a clear mission that unites the common goal, vision of the future and the main functions of the industry. This mission is aimed at increasing the efficiency of the industry and creating conditions for modern competition.

The next step is diagnostics, which involves analyzing external and internal conditions, opportunities and threats in order to consciously approach the formation of long-term and short-term goals. These goals must be detailed into strategic objectives that will serve as beacons in the process of implementing the strategy.

Next comes the analysis of strategic alternatives, which is focused on evaluating and comparing various approaches and development paths in order to select the most appropriate and promising one. The choice of strategy involves weighing all the pros and cons and taking into account the unique aspects of the enterprise, whether these are ultimate goals, management priorities, strategic resources, scale of operations or competitive advantages.

The final stages – implementation of the strategy and its subsequent assessment of its effectiveness – are focused on the practical application of the chosen plan and monitoring of the achieved results. This allows for fairly prompt adjustments to actions in the event of unforeseen changes in the industry or external environment and ensures business flexibility, which is one of the key aspects of a successful strategy in the dynamic tourism industry.

III. Results

The exploration of the role of eco-tourism in mitigating climate risks and enhancing competitiveness yielded several significant findings. These results illuminate the potential of eco-tourism to contribute positively to environmental sustainability, local economic resilience, and social well-being.

1. Economic Benefits of Eco-Tourism

The analysis revealed that eco-tourism initiatives have a notable positive impact on local economies. In regions where eco-tourism has been implemented, there has been a marked increase in job creation and income generation. For instance, case studies from several eco-tourism hotspots, such as Costa Rica and the Galápagos Islands, indicated that eco-tourism contributes significantly to GDP and creates employment opportunities in areas like guiding, hospitality, and conservation management.

Moreover, eco-tourism promotes the diversification of income sources for local communities, reducing their dependency on traditional sectors that may be more vulnerable to climate change, such as agriculture and fisheries. This economic diversification is crucial for enhancing the resilience of communities to climate-related shocks.

2. Environmental Impact and Conservation Efforts

Eco-tourism's focus on sustainability and conservation has led to measurable improvements in environmental management practices. Destinations that adopted eco-tourism practices reported better preservation of natural habitats and biodiversity. For example, protected areas that incorporate eco-tourism have seen increased funding for conservation efforts, resulting in enhanced ecosystem protection and restoration initiatives.

Additionally, eco-tourism promotes the use of renewable energy sources and sustainable practices among local businesses. Surveys conducted among eco-lodges and tour operators indicated a high level of commitment to environmentally friendly practices, including waste reduction, energy efficiency, and responsible sourcing of local materials.

3. Community Engagement and Social Development

The study highlighted the critical role of community engagement in the success of eco-tourism initiatives. Active involvement of local communities in eco-tourism projects fosters a sense of ownership and responsibility toward environmental conservation. Communities that participated in eco-tourism development reported improved social cohesion and enhanced pride in their cultural and natural heritage.

Furthermore, eco-tourism provides educational opportunities for both tourists and local

residents. Programs that involve local guides in educating tourists about conservation practices and local ecosystems not only empower communities but also promote sustainable behaviors among visitors. Data indicated that tourists who engaged in educational eco-tourism activities expressed a higher level of environmental awareness and commitment to sustainable practices.

4. Challenges and Barriers to Success

Despite the positive outcomes associated with eco-tourism, several challenges were identified. Issues such as over-tourism in sensitive areas, lack of regulatory frameworks, and inadequate infrastructure can undermine the potential benefits of eco-tourism. In some instances, eco-tourism development has led to environmental degradation when not properly managed.

The findings also indicated that while eco-tourism can enhance competitiveness, its success is highly dependent on effective marketing and branding strategies. Destinations that successfully position themselves as eco-tourism hubs are more likely to attract visitors interested in sustainable travel.

5. Policy Implications and Recommendations

The results underscore the need for supportive policies and frameworks to maximize the benefits of eco-tourism. Governments and stakeholders must work together to establish guidelines that promote sustainable practices, protect sensitive ecosystems, and ensure equitable distribution of economic benefits to local communities.

Investment in infrastructure and capacity-building initiatives is essential for enhancing the effectiveness of eco-tourism programs. Training for local entrepreneurs and stakeholders in sustainable practices, marketing, and visitor management can contribute to the long-term success of eco-tourism initiatives.

The results of this study highlight the vital role that eco-tourism can play in mitigating climate risks while enhancing the competitiveness of tourism destinations. By providing economic opportunities, fostering environmental stewardship, and engaging local communities, eco-tourism emerges as a promising model for sustainable development in the face of climate change. To realize its full potential, however, it is imperative to address the challenges associated with eco-tourism and to implement robust policies that support its growth and sustainability.

When developing a strategy for the tourism industry, the main focus should be on its integration with the socio-economic goals of the state. This includes stimulating the development of technological innovation, attracting investment, ensuring economic stability, and helping to improve the overall level of well-being of citizens.

It is necessary to take into account the geographical location of border areas, because by doing so you create favorable conditions for the tourism industry to flourish thanks to natural advantages and international cooperation.

Improving the quality and diversity of tourism and hotel services is necessary to strengthen the market position and ensure its dynamic development. When planning economic strategies for regions, special attention should be paid to ensuring that the offers created correspond to the demands and expectations of tourists, and that their implementation is aimed at satisfying the real needs of visitors. This will contribute to the creation of conditions not only for successful competition, but also for sustainable socio-economic progress.

IV. Discussion

The findings from this study illustrate the multifaceted role of eco-tourism in mitigating climate risks and enhancing the competitiveness of tourism destinations. As the tourism sector grapples with the challenges posed by climate change, eco-tourism emerges as a viable solution that not only addresses environmental concerns but also supports local economies and

communities. This discussion delves into the implications of these findings, highlighting key considerations for stakeholders and suggesting pathways for future development.

1. Integration of Economic and Environmental Goals

The positive economic impacts associated with eco-tourism demonstrate its potential to reconcile economic growth with environmental conservation. By investing in eco-tourism initiatives, stakeholders can create sustainable business models that leverage natural resources while preserving them for future generations. This dual benefit can be particularly crucial in regions where traditional economic activities may be increasingly jeopardized by climate change.

To harness this potential fully, it is essential for policymakers and industry leaders to integrate economic and environmental goals into strategic planning. This might involve creating incentives for businesses that adopt sustainable practices or providing financial support for community-led eco-tourism initiatives. Moreover, fostering partnerships between the public and private sectors can enhance resource mobilization for eco-tourism projects and ensure that they are designed to benefit both the economy and the environment.

2. The Importance of Community Involvement

Community engagement emerged as a pivotal factor for the success of eco-tourism initiatives. The findings suggest that when local communities are actively involved in the planning and implementation of eco-tourism projects, they are more likely to feel a sense of ownership and responsibility for their natural environment. This increased stewardship can lead to more effective conservation efforts and a stronger commitment to sustainable practices.

To strengthen community involvement, stakeholders should prioritize capacity-building initiatives that empower local residents with the skills and knowledge needed to participate in eco-tourism. This includes training in hospitality management, environmental education, and marketing strategies. Such investments can enhance local livelihoods while fostering a culture of sustainability that permeates the community.

3. Addressing Challenges and Risks

Despite the promising outcomes associated with eco-tourism, the study highlighted several challenges that could hinder its effectiveness. Over-tourism remains a significant concern, particularly in ecologically sensitive areas. If not carefully managed, an influx of visitors can lead to habitat degradation, resource depletion, and negative social impacts.

To mitigate these risks, it is essential for eco-tourism destinations to implement robust visitor management strategies. This could involve setting visitor caps, implementing zoning regulations, and promoting off-peak travel. Additionally, developing clear guidelines for eco-tourism practices can help ensure that all stakeholders adhere to sustainable principles. Collaboration between governments, non-governmental organizations, and the private sector is crucial for creating these guidelines and monitoring compliance.

4. Leveraging Technology and Innovation

The integration of technology in eco-tourism presents an opportunity to enhance both visitor experiences and environmental management. Digital platforms can facilitate better communication between tourists and local communities, enabling more informed travel decisions that prioritize sustainability. Additionally, technology can be used to monitor environmental impacts in real-time, allowing for swift responses to any emerging issues.

Innovative practices, such as virtual reality experiences that promote environmental education or apps that track carbon footprints during travel, can also enhance the eco-tourism experience. By leveraging technology, eco-tourism can appeal to a growing demographic of environmentally conscious travelers seeking meaningful and sustainable travel experiences.

5. Future Research Directions

While this study provides valuable insights into the role of eco-tourism in addressing climate risks, further research is warranted to deepen understanding of its long-term impacts. Future

studies could investigate the effectiveness of specific eco-tourism initiatives across different geographic regions and cultural contexts. Additionally, exploring the interplay between eco-tourism and other sustainable development goals could yield insights into how this sector can contribute to broader global efforts.

Another area for future research could focus on the social dynamics within communities engaged in eco-tourism. Understanding how eco-tourism affects social structures, gender roles, and cultural practices can inform more inclusive and equitable approaches to sustainable tourism development.

In summary, the discussion highlights the significant potential of eco-tourism to address climate risks while enhancing the competitiveness of tourism destinations. By aligning economic, environmental, and social objectives, stakeholders can create sustainable tourism models that benefit local communities and preserve natural resources. However, realizing this potential requires proactive management, community engagement, and a commitment to continuous improvement. As the tourism sector navigates the challenges of climate change, eco-tourism stands out as a promising pathway toward a more sustainable and resilient future.

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In the last twenty years, tourism has emerged as a leading sector stimulating growth in competitiveness in the context of expanded reproduction within the capitalist economy. With advances in tourism infrastructure and standardization of services, the industry has become an important component of the global economy. Tourism's contribution to employment is particularly noticeable: every tenth job is related to this sector, with women occupying 54% of such positions, which distinguishes tourism compared to 39% in other sectors.

According to the World Tourism Organization, in 2022, the industry's revenues contributed 10.2% to the global gross domestic product, while accounting for 30% of global services exports. For 38% of countries, tourism has become the main source of foreign exchange. Before the pandemic, annual growth in international tourism was maintained at 5.1%, reaching 1.5 billion international travelers in 2019.

Europe continues to traditionally hold a leading position in world tourism. In 2023, EU countries accounted for more than half of international tourist arrivals, generating around €407 billion. In terms of regions, Europe controls 51% of the world tourism market, surpassing regions such as Asia (25%), North and South America (30%), Africa (16%) and the Middle East (5%). In Europe, there is a predominantly domestic tourism trend, as only 9% of Europeans prefer to travel outside their own region. The preference for local destinations is confirmed by the fact that every second European travels within the continent at least once a year. The GDP from tourism in the EU as a whole amounted to 10.4%, with particularly high figures in the economies of such countries as Croatia, Iceland, Greece, Portugal, Spain, Italy and Malta, while in Scandinavia and Eastern Europe the tourism sector is of lesser importance.

Since 2007, a comprehensive metric tool, the Travel and Tourism Competitiveness Index (TTCI), has been used to assess the competitiveness and sustainable development of the tourism sector. This comprehensive tool was developed by the World Economic Forum (WEF) in collaboration with global industry and business organizations and covers 140 countries.

The TTCI index combines four sub-indices based on 14 variables and 90 precise indicators that assess both direct and indirect factors that influence the success and progress of tourism.

Among these factors, the key ones are the quality of the business climate, the effectiveness of legislation for business, the infrastructure of safety and health, the advancement of education and transport, the flexibility of the labor market, innovation indicators, such as the level of R&D, the prevalence of mobile phones and the Internet among the population. Also significant are the priorities of state policy in the field of tourism, price competitiveness, environmental sustainability and cultural and natural resources.

An analysis of World Economic Forum data demonstrates the superiority of the European Union (EU) in the field of tourism competitiveness: the average TTCI index for EU countries is 4.3, which is higher than the average values for the Americas (3.9) and Asia (4.2). Notably, of the 30 countries with the highest index, 16 are in the EU, led by the triumvirate of Spain, France and Germany, each with an index of 5.4, adjusted for the latest assessments. This significantly exceeds the average indicators not only for Europe, but also for the world as a whole (3.8). For example, Italy, Greece, Austria and Portugal are also significantly ahead in the ranking. At the opposite end of the spectrum, Cyprus closes the list of European countries in the integral index, occupying 44th place, however, there is a positive trend - an increase of 8 positions since 2018, thanks to active government actions to support the tourism industry.

The European Union dominates in many key areas of competitiveness assessment, with excellent results in security (score 5.8 out of 7), health (score 6.2), education (score 5.0) and information technology (score 5.4). Although slightly lower in tourism infrastructure (4.9), land transport networks (4.1) and environmental sustainability (4.7), these are still above average and indicate a high quality of service on offer.

However, there are some areas of concern, such as the state of the business environment, the development of the aviation industry and innovation progress, where Europe has room for improvement. According to the Global Innovation Index 2020, only four European countries - the Netherlands, Denmark, Finland and Germany - are in the top 10 innovation leaders. High costs of tourism services due to hotel pricing policies, tourist taxes and high fuel excise duties, as well as strict visa policies, may also limit the EU's competitiveness.

However, the key indicators for determining the potential of the sustainable tourism sector in the EU countries in the near and long term are factors that assess the natural and cultural potential, the environmental sustainability of the region and the priority of this sector in state policy.

In the 20th century, the concept of sustainable development gained significant momentum as a decisive principle for socio-economic systems. Over time, anthropogenic influence led to the disruption of the natural self-regulating processes of the biosphere, which, in turn, provoked global environmental shifts and affected the deterioration of the quality of life on the planet.

In response to growing concerns about the ecological state of the planet and the future of human civilization, in 1983 the UN initiated the creation of the Commission on Environment and Development, headed by Norwegian Prime Minister Gro Harlem Brundtland. The Commission's task was to analyze the complex interrelations between environmental and socio-economic problems and to develop sustainable development strategies for different regions of the Earth. This time was characterized by an understanding of the need to update approaches to global development.

"Sustainable development" was formally defined in 1987 by Brundtland in a report entitled "Our Common Future". The essence of this concept is to achieve the needs of modern society without compromising the opportunities of future generations. Key aspects of sustainable development include meeting the basic needs of the least protected sections of the population and taking into account the environmental limitations determined by the state of existing technologies and social organization.

lives. This empowerment is essential for fostering a culture of sustainability, as community members become advocates for environmental protection and responsible tourism practices.

Capacity-building initiatives are crucial for equipping local residents with the skills and knowledge necessary to engage effectively in eco-tourism. Training programs focused on hospitality management, customer service, environmental education, and marketing can enhance the ability of community members to contribute meaningfully to eco-tourism efforts. These initiatives not only improve individual livelihoods but also strengthen the overall community's resilience to economic and environmental changes.

2. Cultural Preservation and Heritage Promotion

Community involvement in eco-tourism provides an opportunity for local residents to share their cultural heritage and traditional practices with visitors. This cultural exchange enriches the travel experience for tourists while promoting the preservation of local traditions and customs. By showcasing their unique cultural identities, communities can attract visitors interested in authentic experiences, which can differentiate them from more conventional tourist destinations.

For example, eco-tourism projects that involve local artisans, musicians, and storytellers can create immersive experiences for tourists that celebrate the community's cultural heritage. This not only enhances the tourist experience but also provides a sustainable source of income for local artists and cultural practitioners, helping to maintain the community's cultural identity amidst globalization.

3. Sustainable Resource Management

Involving local communities in eco-tourism also leads to better resource management and conservation outcomes. Community members often possess valuable knowledge about local ecosystems and sustainable practices, which can be leveraged to enhance conservation efforts. When communities are invested in eco-tourism, they are more likely to engage in practices that protect their natural environment.

Participatory resource management approaches, such as community-led conservation projects, can be effective in ensuring the sustainable use of natural resources. For instance, in many eco-tourism areas, local communities have taken the lead in establishing conservation areas, implementing sustainable fishing practices, and protecting endangered species. By giving communities a stake in resource management, eco-tourism can foster a sense of responsibility and stewardship that benefits both the environment and the local economy.

4. Economic Benefits and Job Creation

Community involvement in eco-tourism initiatives directly translates into economic benefits for local populations. By engaging local residents as guides, operators of eco-lodges, and participants in cultural programs, eco-tourism can create job opportunities and generate income within the community. These economic benefits are particularly crucial in rural and marginalized areas where traditional livelihoods may be threatened by climate change and other factors.

Furthermore, eco-tourism can stimulate local economies by encouraging the development of related industries, such as handicrafts, food production, and transportation services. The infusion of income from eco-tourism can lead to broader economic development, improving infrastructure and access to services for the entire community.

5. Strengthening Social Cohesion

Community involvement in eco-tourism can also strengthen social cohesion and foster a sense of community pride. As local residents work together toward common goals, such as preserving their environment and promoting their culture, social bonds are strengthened, and community identity is reinforced. This social capital is vital for resilience, enabling communities to adapt to changes and challenges more effectively.

Additionally, when communities collectively participate in eco-tourism, they are better equipped to voice their needs and concerns to external stakeholders, including government

entities and tourism organizations. This enhanced advocacy can lead to more inclusive decision-making processes that reflect the interests and aspirations of local residents.

In summary, community involvement is a cornerstone of successful eco-tourism initiatives. By empowering local residents, promoting cultural preservation, improving resource management, generating economic benefits, and fostering social cohesion, community engagement enhances the sustainability and effectiveness of eco-tourism projects. Stakeholders in the tourism industry must prioritize the involvement of local communities in eco-tourism planning and implementation, ensuring that the benefits of eco-tourism are shared equitably and that communities are active participants in shaping their futures.

Based on the information presented in the table, France, Spain and Italy stand out among the world leaders in terms of the volume of natural and cultural resources with an index approaching six, and are second only to China. Significant biological and landscape diversity is characteristic of the territory of the European Union. Despite the high population density and active economic processes, the EU has preserved exceptional ecosystems to a sufficient extent - from mountain peaks to coastlines and marshy areas. Europe's natural wealth is unique due to its geographical diversity with many islands, as well as variability in geological, orographic, soil, climatic and cultural contexts.

The European Union stands out in particular for its number of protected natural areas. As of 2023, Spain has 49 biosphere reserves out of 686 recognised globally, in addition to hundreds of national parks, game reserves and other protected natural areas. Such sites account for more than a quarter of the EU's land and inland waters, as well as almost a third of its territorial waters. Europe is responsible for 65.6% of all protected natural area locations registered by the UN, although they represent only 12.9% of the world's land area, highlighting the comparatively small size of these areas in Europe.

Europe's cultural and historical contribution is comparable to its natural wealth and is expressed in the diversity of cultures that have left their mark on human history. In 2020, 22% of UNESCO's World Heritage Sites are located in Europe, with Italy leading the list (54 sites), followed by Spain (47) and France and Germany (44 each). This heritage reflects not only architectural structures, but also regional traditions - such as festivals, music, dance, customs and gastronomy - that define the unique cultural essence of European countries.

Cultural and environmental interests of tourists have become key factors influencing the tourism economy. Modern travelers are increasingly abandoning ordinary beach holidays in favor of unique cultural and natural places. They are ready to invest in excursions to historical places, visits to national parks and reserves, as well as in the experience of immersion in the cultural environment and life of local residents.

Growing demand for personalised and eco-conscious tourism is supporting a variety of forms, from green tourism to agritourism and food tours. These destinations are becoming increasingly popular and are showing significant growth. Sustainable tourism is moving from niche to mainstream, with 87% of users of leading booking platform Booking.com stating their willingness to follow its principles.

A significant statistic is the growth rate of ecotourism revenues, which are at 20% annually – six times higher than the overall growth in the tourism industry. This data indicates a change in priorities in tourist behavior, a switch to a more conscious and responsible approach to travel, and highlights the importance of sustainable development in the global tourism industry.

In the field of tourism, the main social performance indicators include the following aspects:

- improving the quality of life of the population in regions with developed tourism, which contributes to raising their well-being;
- modernization of recreational infrastructure, creating conditions convenient for both visitors and local residents;

- protection of natural and cultural values in order to preserve historical and natural monuments; putting unused territories into circulation, which allows for the rational use of land resources; providing education and qualifications to local residents to create new jobs and develop skills;

- strengthening cultural ties through the promotion of mutual cultural enrichment and cooperation with neighboring territories.

Sustainable tourism requires an active environmental approach that includes minimizing environmental impacts, such as pollution control, conservation of natural resources, creation of protected areas, and efficient waste management. This approach is responsible for reducing adverse effects on ecosystems, such as loss of biodiversity or pollution, and preventing an increase in the carbon footprint of transport and construction.

Sustainable tourism must also support social development in host regions by involving local communities in tourism projects and ensuring that benefits are fairly distributed. It is important to protect and promote local traditions to avoid loss of identity and cultural traditions. Tourism can be a source of social transformation, cultural exchange and understanding, but it can also cause negative consequences such as cultural commodification and the destruction of traditional ways of life.

Community participation and empowerment are essential to sustainable tourism. Important components include protecting cultural identities, supporting community enterprises, and ensuring fair sharing of economic benefits. While tourism provides economic benefits through employment and infrastructure, over-reliance on the industry can lead to economic vulnerability. Sustainable tourism strategies focus on economic diversity, supporting local entrepreneurship, and implementing responsible tourism practices to ensure long-term economic stability.

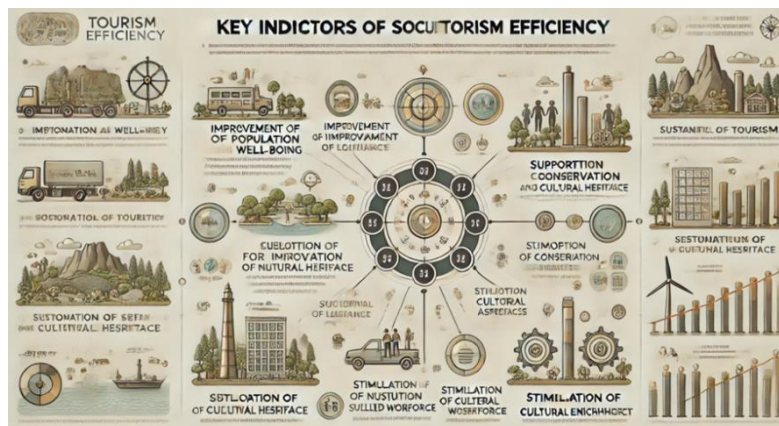


Figure 3: Key indicators of social performance of tourism, as well as its impact on the environment, social and economic aspects (Source: author's development)

Unfortunately, as tourism grows, its negative effects become more visible and cause ever greater concern. Experts emphasize that approximately half of the natural and cultural heritage sites are currently under severe pressure due to the intensive tourist flow. Standardized mass tourism can lead to environmental degradation, pollution and, in extreme cases, destruction, threatening the ecological balance of such places.

Climate change is one of the major challenges facing the modern world, and tourism plays its part. According to data, the tourism industry produces between 5 and 12.5 percent of global carbon dioxide emissions, taking into account the contribution of all greenhouse gases that add to the problem of global warming. The bulk of these emissions come from transport, with air travel responsible for 40 percent, as it provides more than half of international tourist movement, and road transport for 32 percent. Hotel services and their impact on the climate account for 21 percent

of emissions, including the energy consumed by air conditioning, heating and maintaining swimming pools.

If current tourism trends continue, CO₂ emissions could increase by 135% by 2035, which would have a catastrophic impact on the environment, the ozone layer and natural resources, not only in popular tourist regions of Europe but also worldwide. This prospect highlights the need for urgent action to reduce the carbon footprint of the global tourism industry.

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