

SUSTAINABILITY IN SPORTS: ENVIRONMENTAL SUSTAINABILITY

I.I. Saidov

Professor, Department of Physical Culture
Asia International University
Email: izzattilosaidov@gmail.com

Abstract

The aim of this study is to review research conducted on environmental sustainability in the field of sports sciences. The concept of sustainability is a frequently addressed topic in many fields. In the field of sports, it appears in various forms of sustainability. Environmental sustainability has been considered as a major dimension of sustainability. Sport and the environment are two inseparable components. Sport affects the environment and can also be used as a tool to raise environmental awareness. Sporting events have an impact on the environment. Especially mega-events, combined with sports tourism, lead to significant effects. They have both positive and negative environmental impacts. For this reason, studies related to sporting events and sustainability have been examined. On the other hand, sports tourism is a major industry and has influences in many areas. In the field of sport, it generates numerous economic, environmental, and social positive or negative outcomes. Therefore, sports tourism and environmental sustainability have been analyzed. In addition, studies related to sports organizations that contribute to the advancement of sustainability in sport have been reviewed. Developments carried out by the Olympic Committee as the highest governing body in sport, environmental initiatives implemented by international federations, and the contributions of other sports organizations to environmental sustainability have been examined. As a result, studies in the literature regarding sporting events, sports tourism, and sports organizations in relation to sport and environmental sustainability have been reviewed.

Keywords

Sustainability, Environmental sustainability, Sport, Sports tourism, Sports organizations

Introduction

Sustainability has become a concept frequently addressed in many fields in recent years. In the field of sport, sustainability is commonly discussed from environmental, economic, social, and managerial perspectives. Linking the concepts of sport and environment has become an area of interest for researchers from various disciplines in order to address issues such as climate change, sustainability, and the resilience of the industry. This intersection of sport and the environment is becoming an integral part of advancing innovation and shared sustainable development goals.

With its high demand for resource consumption and emission outputs, sport has increasingly become a source of concern in climate change debates. Climate research in sport covers many aspects, ranging from tourism to climate-related health effects on athletes, staff, and endurance participants, thereby providing an important entry point into broader research discussions. The relationship between sport and the environment is bidirectional: sporting activities may damage sensitive environments, while they are also affected by environmental changes such as climate change and the loss of natural areas, which may hinder participation in sport. For example, sporting events can contribute to climate change, while climate change can create serious challenges for the sustainability of certain sport activities such as snowmobile

tourism, ice fishing, skating, and skiing. In this context, it is important to examine environmental sustainability studies in sport [1].

Environmental sustainability is one of the most urgent and complex grand challenges facing the contemporary world, as emphasized by its central position within many of the United Nations Sustainable Development Goals. Environmental sustainability issues must be addressed in multiple forms, including climate change and carbon emissions, waste management, pollution and environmental degradation, the use of scarce natural resources such as water, the use of “dirty” and “clean” energy, the production and recycling of consumer goods, and the impacts of modern life on biodiversity and the natural world.

Environmental sustainability is critically important for sport, physical activity, education, and outdoor life in various ways. For instance, the development of facilities and equipment for these activities requires the use of scarce natural resources and has significant environmental impacts. The staging of sporting events often involves a large carbon footprint and produces substantial material waste. In many environments, physical exercise may carry environmental risks such as air pollution or extreme heat. Participation in outdoor activities such as mountaineering or canoeing may threaten local biodiversity and microclimates [2].

Therefore, environmental sustainability issues are of crucial importance for sport, physical activity, education, and outdoor life at multiple levels: in terms of geographic scale, types of participation, and varying levels of expertise and commitment. Some international sport organizations attempt to address environmental sustainability issues by adhering to international standards. In addition, sport-related tourism practices, including sport travel, consumption, and environmental impacts, represent another important dimension of this field.

When the literature on sustainability in sport is examined, it can be seen that many studies have been conducted, especially in recent years. However, despite the large number of studies, certain shortcomings related to sustainability are still noticeable. According to Braksiek and colleagues, an important and often overlooked issue in studies on sport and sustainability is the attitudes of sport participants toward environmentally friendly behaviors. Although research on elite sport contexts has paid greater attention to such behaviors, researchers have identified a lack of studies at the grassroots level of sport participation. Using Ajzen’s Theory of Planned Behavior from social psychology, researchers examined 3,036 male and female members of community sport clubs in Germany in terms of three behavioral antecedents: attitudes toward the behavior, subjective norms, and behavioral intentions [3].

While differences between men and women were identified in the relationship between antecedents and intention, the study found that these three antecedents successfully predicted sport club members’ behavioral intentions to act in an environmentally friendly manner and concluded that the Theory of Planned Behavior can be fully applied to sport club members and grassroots sport contexts. According to Tangen, the modern sport ethos, which emphasizes record-breaking and thus “unlimited growth,” embodies, reflects, and adopts the pathologies of modernity that lie at the center of the current climate crisis. Sport can be viewed both as a metaphor and as a significant driving force behind this development.

Although research on the sustainability and environmental impact of mega sporting events is quite extensive, smaller and more local events have not been studied to the same extent. Jensen and Tollin analyzed the conceptualization of sustainability related to sport events in 22 different municipalities in Norway. They found that sustainability remains an “unfinished puzzle” for local policymakers and that there are significant differences among municipalities in how sustainability is conceptualized in their main plans and how it is translated into event policies. Their study reveals the complexity faced by local policymakers when there is a demand for both more events and increased sustainability measures. In this context, it is considered

important to address sustainability in sport and to examine its significant environmental impacts and contributions [4].

Sport events and sustainability

In contemporary society, organizers of sporting events and other major social gatherings are under pressure, like the rest of society, to find new sustainable ways of staging their events. At the global level, the owners of the largest sporting events, such as the International Olympic Committee and the international football federation FIFA, have initiated efforts to reduce their environmental impacts. Even non-sport organizations have developed new international frameworks for the sustainability of sport.

Environmental sustainability envisions a state of balance, resilience, and interconnectedness that allows human society to meet its needs without exceeding the capacity of supporting ecosystems to continue reproducing the services required to meet those needs or reducing biodiversity through human actions. The need to promote environmental sustainability strategies is justified by the fragile ecological condition of the planet, as reflected in various international reports. The United Nations recognizes the importance of tourism and sport in achieving sustainable development goals and supports the connection between them. The role of tourism, particularly within the scope of the Olympic Games, in advancing sustainability in sport has been acknowledged. Sports tourism has also been emphasized by the World Tourism Organization due to its potential to promote environmental sustainability by raising awareness and encouraging the adoption of environmentally friendly measures as one of the fastest-growing tourism segments [5].

Another notable development is the establishment of the Sport for Climate Action Framework, which aims to bring together actions to combat climate change. Similarly, an event titled Transforming Tourism for Climate Action was organized in the field of tourism for the same purpose. Sustainable tourism is also envisaged as a strategy to promote sustainable consumption and production in connection with lifestyle and education themes within the One Planet Sustainable Tourism Program.

Sporting events are valuable tools for promoting environmental awareness, and their importance has been recognized by both the International Olympic Committee and the United Nations. The International Olympic Committee has developed various guidelines to support sport organizations on the path toward sustainability, including recommendations to reduce plastic use and address climate change issues in the management of sporting events. Sport organizations are motivated by strategic and legitimacy-related factors to adopt environmental management practices, and these efforts continue to progress. This growing support further emphasizes the importance of evaluating the outcomes of environmental initiatives to legitimize continuity, justify regulations, or guide such initiatives.

The organization of green-themed sporting events and the implementation of environmental initiatives through fan engagement campaigns, such as environmental education, are among the most commonly adopted environmental practices by sport organizations. Therefore, it is important to evaluate the effectiveness and impacts of such efforts based on organizational outcomes among targeted stakeholder groups. Environmental sustainability in sport is not limited to clubs, athletes, and governing bodies. Passive participants, who are major stakeholders in sport, are also considered and supported for a sustainable environment. Spectators are recognized as an important stakeholder group in the implementation of triple-bottom-line efforts among event managers and in the evaluation of sustainability performance of events.

Research has identified a lack of studies in marketing and environmental communication related to environmental sustainability campaigns in sport and has suggested examining the

effectiveness of environmental initiatives on fan behavior. Therefore, it is necessary to investigate which factors influence spectators' responses to environmental campaigns in order to contribute to the increase of pro-environmental behaviors and to justify the promotion of current and future environmental initiatives in various sport contexts. Studies have confirmed the importance of sport initiatives and campaigns in encouraging spectators to adopt more environmentally friendly behaviors. Research findings reflect environmental values, personal norms, and sport-related norms as predictive factors for spectators' sustainability behaviors. In this context, it can be stated that addressing and raising awareness among spectators and fans, who are important stakeholders in sport, is essential for increasing environmental sustainability [6].

Sports tourism and sustainability

Sports tourism can be defined as travel undertaken outside one's usual place of residence to participate in or observe sporting activities for recreational purposes, whether competitive or non-competitive. Although sports tourism initially appeared to be merely a touristic activity, it is now regarded as an experience of sport culture. In today's world, sport plays an increasingly significant social and cultural role, and sports tourism should be considered an autonomous phenomenon of our time that reflects current trends, needs, and lifestyles. Sports tourism has never been more popular, and the combination of sport and tourism has become a mega trend in the post-modern world.

However, not all impacts of tourism are positive. The excessive growth of sports tourism and the lack of planning in the final decades of the twentieth century have led some tourist destinations to become victims of their own success, with their carrying capacities being strained. This is largely because planning and sustainability concepts in the tourism sector were not widely developed in a generalized manner until the late 1980s and early 1990s. In 2015, global discussions on sustainability led to support for the United Nations 2030 Sustainable Development Agenda, which includes 17 Sustainable Development Goals, each with specific targets to be achieved within 15 years. Tourism is included in the goals related to sustainable and inclusive economic growth, sustainable production and consumption, and the sustainable use of oceans and marine resources. Therefore, tourism and sustainability are closely interconnected [7].

Due to its development, characteristics, and typologies, sports tourism contributes to the achievement of sustainable development goals in ways that differ from other forms of tourism. The increasing interest in sustainability at all levels of sports tourism demonstrates how researchers are adapting to the concerns of the twenty-first century. A review of the literature shows that research increasingly emphasizes the relationship between environmental sustainability and sport, particularly focusing on sports tourism. On the other hand, studies tend to focus more on the environmental impacts of destinations rather than the impacts created by sporting events.

Literature reviews examining the intersection of sport, tourism, and environmental sustainability reveal a fragmented approach. Some studies analyze the relationship between sport organizations and environmental sustainability from a narrow perspective of the sport sector, while others examine the relationship between leisure activities and sustainability, leaving a gap regarding the sport component. Sporting events stand out as a context in which the relationship between sports tourism and environmental sustainability has been more extensively examined. Although numerous studies have focused on international mega-events and stadium events, there remains a lack of research on nature-based sport events and on key stakeholders such as spectators, local communities, and the media. Conversely, participants in outdoor sports are the group most frequently addressed within the environmental dimension of sports tourism.

Factors influencing the adoption of environmental sustainability within the sport context have been a central focus in the literature. Among these factors, several stand out. First, sport practice plays an important role; more experienced and expert sport participants have demonstrated greater awareness and environmentally responsible behavior toward the protection of nature compared to those who use sport accessories that may cause greater damage to natural environments. Second, positive or negative perceptions regarding the implementation of environmental sustainability in sport influence the adoption of more ecological attitudes and behaviors among sport consumers. Conversely, perceived inconsistencies between environmental messages and the characteristics of sports tourism may limit the adoption of environmentally responsible behaviors. Third, environmental attitudes have a positive influence on the environmental behaviors of sport actors; however, an attitude–behavior gap has also been identified, as environmental attitudes do not always translate into actions such as reducing carbon footprints. Finally, external pressures also play a role; peer and societal pressure can positively influence the adoption of environmental practices among sport actors, although demand for services that negatively impact the environment may restrict such adoption [8].

Sport organizations and sustainability

Considering the recent large-scale growth in sporting events and the ambitions of rights holders, it has become vital to take into account the environmental and social impacts of these events. This awareness led to the publication of an international standard in 2010 known as ISO 26000, which provides guidance for organizations and businesses on how to operate in a socially responsible manner. Two years later, in connection with the London 2012 Olympic Games, ISO introduced a separate set of standards for sustainable event management (ISO 20121), providing guidelines for mapping the economic, environmental, and social impacts of sporting events.

In the mid-2010s, the International Olympic Committee began to use the term “sustainability” in its strategic documents, replacing the concept of “social responsibility” and adopting “sustainable development” as an umbrella term encompassing all social responsibility initiatives. Among the International Olympic Committee’s significant efforts to promote sustainability was the launch of sustainability projects for international sport federations in 2016. Additional objectives included encouraging more sporting events to be organized sustainably and developing a sustainability strategy. Furthermore, a sustainability manager was appointed in early 2017, and in 2018 a sustainability guidebook was published.

Sustainability has become one of the three fundamental pillars of the Olympic Agenda 2020, the strategic roadmap of the International Olympic Committee. Sport is considered an important enabler of sustainable development. The contribution of sport to achieving sustainable development goals has increasingly been recognized. The impacts caused by a particular sporting event can be considered a legacy that remains for the residents of the city and region where the event takes place. However, large events may also have negative sustainability-related impacts on local communities. From a local ecological perspective, major sporting events may produce a number of significant negative side effects, including increased emissions of toxic substances, additional noise, and waste generation [9].

The environmental impacts of sports tourism may sometimes be more negative than positive. These impacts have attracted the attention not only of event hosts but also of researchers and sustainable development experts who distinguish between tangible and intangible legacies, including social, cultural, ecological, economic, urban, and sporting outcomes such as new sport infrastructure or encouraging participation in sport. Therefore, it is important to examine the perspectives of organizations managing major sporting events regarding environmental sustainability and the initiatives they undertake in this area.

Conclusion

Environmental sustainability has become an increasingly significant issue within the field of sport. The growing scale of sporting events, the expansion of sports tourism, and the influence of sport organizations have led to greater awareness of environmental impacts and the need for sustainable practices. The literature demonstrates that sport not only affects the environment but is also affected by environmental changes, highlighting the importance of integrating sustainability into all aspects of sport.

Studies on sporting events indicate that both mega-events and local events have considerable environmental consequences, making sustainable planning and management essential. Similarly, sports tourism, while offering economic and social benefits, can place significant pressure on natural resources and ecosystems if not managed sustainably. The increasing global focus on sustainable development has encouraged the adoption of environmentally responsible practices within sport organizations, international federations, and governing bodies.

Sport organizations play a key role in promoting environmental sustainability through strategic initiatives, policies, and awareness campaigns. Their efforts contribute to reducing environmental impacts, encouraging responsible behavior among stakeholders, and supporting global sustainability goals. However, despite growing awareness and numerous initiatives, gaps remain in the implementation and evaluation of sustainability practices across different levels of sport.

In conclusion, environmental sustainability in sport requires comprehensive and coordinated efforts from sport organizations, event organizers, participants, spectators, and policymakers. Strengthening sustainable practices in sporting events, sports tourism, and organizational management will contribute not only to the protection of the environment but also to the long-term development and social value of sport.

References:

1. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
2. Alexandris, K., & Kaplanidou, K. (2014). Marketing sport event tourism: Sport tourists' motivations and behavior. *Journal of Sport & Tourism*, 19(3–4), 225–241.
3. Ardoin, N. M., et al. (2015). Environmental education and sustainability in leisure and tourism. *Journal of Sustainable Tourism*, 23(5), 743–758.
4. Babiak, K., & Trendafilova, S. (2011). CSR and environmental responsibility: Motives and pressures to adopt green management practices. *Corporate Social Responsibility and Environmental Management*, 18(1), 11–24.
5. Barrett, M., et al. (2019). Green sport events and fan engagement in environmental sustainability. *Sport Management Review*, 22(4), 531–543.
6. Bayle, E. (2016). Sustainability and sport organizations: Strategy and governance. *European Sport Management Quarterly*, 16(1), 1–18.
7. Boggia, A., et al. (2018). Measuring sustainability performance of sport events. *Journal of Cleaner Production*, 172, 2236–2247.
8. Braksiek, N., et al. (2021). Environmental attitudes and pro-environmental behavior in sport clubs. *Sustainability*, 13(5), 2595.
9. Buscarini, A., et al. (2021). Sustainability in sport management: International perspectives. *Sustainability*, 13(7), 3903.