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Environmental sustainability in sport: Current state and future trends

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Abstract

Problem statement: The sport industry recognized the impact it has on the natural environment and developed strategies to address relevant issues. This concern triggered two environmental initiatives: reducing the ecological footprint and using sports as a means to raise environmental awareness.

Purpose of study: This presentation provides an overview of the scholarly work on environmental sustainability in sport. We present examples of environmental programs adopted by sport organizations around the world and discuss the current state of environmental efforts.

Methods: Semi-structured interviews, website analysis, and published documents were used in the analysis. Data were analyzed through qualitative methods to identify themes representing the current status of environmental efforts in sport.

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Finding and results: Sport organizations are proactively addressing the negative environmental impact of their operations producing outcomes including increasing organizational legitimacy, averting legal recourse, saving money, and building stronger relationships with key stakeholders. Results also illustrate the challenges associated with the successful adoption of environmental programs such as communication issues and available organizational resources.

Conclusions and recommendations

The trend is for sport organizations to expand and implement current environmental initiatives. The current focus on the environment in sport is expected to continue due to social values and expectations of stakeholders, government intervention, and mandatory requirements for certain certifications (e.g., LEED). Sport organizations need to develop partnerships with industry experts and within sport leagues to continue their efforts. As environmental awareness grows, sustainable sports offer a platform from which to address these issues and contribute to a sustainable future.

Keywords: environment, sport industry, sustainability.

1. Introduction

The recognition of the importance of the relationship between sport and the natural environment dates back to the 1994 Winter Olympics in Lillehammer, Norway, when for the first time concerns regarding the negative impact on the environment were addressed by carefully planning the construction of facilities. The Organizing Committee initiated more than 20 sustainability projects to ensure that the Games were environmentally friendly. The 1994 Olympics established a long-term legacy and were widely regarded as the first 'Green Games'. Since then, the sport industry has committed to taking actions and has started to develop strategies to mitigate the environmental impact associated with sport facilities and events [1]. This concern for sustainable management of sport has triggered two types of environmental initiatives: to reduce the ecological footprint of sports, and to use sports as a means to raise environmental awareness [17]. The next section of this paper examines the literature pertaining to the issues of environmental sustainability in sport, followed by a section with specific examples of environmental initiatives, and concluding with a summary of the current state and future trends.

1.1. Overview of scholarly work on sport and environment

Academic work focusing on sport and the environment has steadily grown over the past 15 years, with the work of Lenskyj [9] being the first to examine the complex relationship between sport and the environment. Smith and Westerbeek [18] acknowledge that sport has become more environmentally conscious, but there are still concerns as to the negative environmental impacts of sport activities such as habitat destruction in the construction of sport facilities and the use of fuels in motorsports. A significant development in the construction of facilities has been the establishment of Leadership in Energy and Environmental Design (LEED), founded by the US Green Building Council, which is an internationally recognized mark that provides a framework for implementing green design. The results of a study on 16 major North American sport facilities concluded that sport facility managers are compelled to address environmental sustainability [10]. Many facilities have implemented formal and informal environmental systems to address this new focus, with most environmental performance advances revolving around saving electricity and recycling.

Others have studied the role of stakeholders in sustainability efforts, concluding that through the engagement of stakeholders, organizations can better understand and elucidate the different dimensions of the environmental challenges they face [8, 12]. McCullough and Cunningham [11] provided a theoretical framework to identify the pressures that sport organizations encounter from internal and external stakeholders to abandon their disregard for the environment and being to

implement environmental sustainability program and the possible outcomes of such efforts. For instance, Trendafilova and Babiak [22] explored environmental sustainability among the four major sport leagues in North America and discovered that professional leagues are partnering with the National Resources Defense Council (NRDC, a national environmental action group advocating for stringent environmental protection) in order to implement systems, structures and processes by which to engage in greening activities. Another organization, the Green Sports Alliance, has also been involved with professional sports to assist with and enhance their environmental performance. The organization has members representing over 100 sport teams and venues from 13 sport leagues [15]. The high level of commitment of the sport industry and the collaborative efforts with the NRDC and the Green Sports Alliance has been summarized in the 'Game Changer' report, published in 2012. The report provides numerous case studies of the professional sports industry's most prominent and successful greening initiatives from across North America [13]. These environmental practices, in addition to being the 'right thing' to do, may be also averting legal recourse, saving money, and building stronger relationships with key stakeholders, thus contributing to the legitimacy of the sport organizations [3, 17].

The evidence above provides support for the need for sport personnel to address environmental issues from a strategic planning approach more than anything else as this drives the goals, objectives, tactics, and measures required for individual environmental issues as well as the totality of a sports organization's environmental impact [6, 14]. All aspects of a sport organization or event's operations and activities are tied to the natural environment and must be accounted for in overall organizational strategy. Sport organizations are increasingly paying attention to the environment from a strategic perspective and are proactively addressing the impact their operations have on the environment. Academic literature on sport and the natural environment has grown significantly and evolved over the last decade, it is only recently that the ways sport managers address environmental issues has been open to analysis, interpretation and empirical research [e.g., 2, 4, 5, 9, 6, 7, 14, 15]. Most of the research to date regarding sport and the natural environment is published in a variety of academic journals related to the areas of tourism, recreation, and sport management.

1.2. Examples of environmental initiatives in the sport industry

There has been a continuous increase in the number and scope of environmental initiatives adopted by professional sport teams and leagues in North America over the past 11 years, with the Philadelphia Eagles (NFL team) being considered the leader [22, 23]. More specifically, in 2003 the greening of the Lincoln Financial Field was initiated by incorporating renewable energy, promoting recycling, and including the first-ever sports fan education initiative about environmental stewardship. Of the 122 teams in the four major sport leagues in North America, over 30 have shifted to renewable energy, and more than double that number have energy efficiency programs. Major League Baseball has developed the best environmental data measurement program and the 'Green Teams' work hard to ensure the collection of recyclable cups and bottles from fans during the events at the leagues' All-Star Games. The United States Tennis Association (USTA) has also partnered with NRDC to launch its greening efforts at the 2008 US Open, by adopting a water bottle and aluminum can recycling program. In addition, the USTA encourages fans to use public transportation by taking the subway during the tournament.

At the intercollegiate sport level in the United States, athletics department personnel are beginning to undertake strategic planning and tactical efforts (e.g., recycling) to address environmental issues as well. The efforts are driven by a variety of reasons and using different tactics including the need to follow a role as a university or college unit where environment action is mandated [2, 24]. The result is the ability to address university and college mandates, potentially drive revenue generation opportunities, and to enhance their role in the local community [16].

Motorsport is an industry that is globally well recognized and is facing increasing pressure to reduce resource consumption and to operate in an environmentally sustainable manner. The National Association for Stock Car Auto Racing (NASCAR) and its stakeholders have committed to environmental sustainability. NASCAR's 'Race to Green' initiative is the result of nearly five years of work dedicated to making the sport as environmentally friendly as possible and calls on its corporate sponsors, tracks, teams and fans to join in. With the support of The Arbor Day Foundation, NASCAR's 'Race to Green' program allows fans to plant trees in areas of need across the United States. Additionally, NASCAR has the largest and most diverse recycling programs in sport and the most visible bio-fuels program in the world along with the world's largest solar-powered sports facility. Another example from the motor sports industry is Formula One (F1). During the construction and operations of one of the newest race tracks in Austin, Texas (COTA), environmental initiatives were carefully planned and implemented, such as purchasing carbon offsets to achieve carbon neutrality and limiting the on-site parking to 25,000. In addition, COTA has committed to working with government agencies to establish air quality analysis, inventory, modeling and mitigation strategy in addition to land preservation and restoration of all disturbed areas. Last, but not least, plans are in place to use the race track for other types of public events and as a platform for increasing public awareness for green energy and transportation.

Similar initiatives are being adopted by the soccer teams in Europe. The Fédération Internationale de Football Association (FIFA) has been engaged with Local Organizing Committees (LOC) to address environmental protection since 2005 when the German LOC launched the Green Goal environmental program for the 2006 FIFA World Cup. For example, in England, Manchester United has been reducing its energy consumption long before the government introduced the Carbon Reduction Commitment Energy Reduction Scheme. The English club is currently in the process of reviewing the latest technology in renewable energy in order to make further energy savings. The Italian soccer league Serie A clubs are also becoming involved in environmental initiatives. For instance, Genoa CFC has awareness campaigns on environmental education in collaboration with Amiu, the local company in charge of waste management in the city. In addition, the club headquarters and training centers have recycling programs. Another club, FC Inter, plans on using energy generated exclusively from renewable resources and also encourages fans to ride bicycles.

Australia has a number of leaders in environmental building and design practices within the sport sector. Much of the good work was inspired by the 2000 Sydney Olympics, which were developed to extend the legacy presented by the 1994 'Green Games' (Lillehammer, Norway) and since then, the Sydney Olympic Park Authority (SOPA) have expanded the design and use practices to all those residing within its community. The located businesses are held to the SOPA environmental standards and are bordered by the environmentally upgraded wetlands and woodlands [20]. Another major event, and similar to the efforts made by the USTA with the US Open, the Australian Open has designed its major developments with sustainability considerations in mind, including building materials, water, energy, and design principles [19, 21]. Outside of major events, professional sports and local councils have made efforts in managing its environmental conditions such as drought issues and energy opportunities. Key examples include the water conservation considerations in the development plans of Simonds Stadium (Geelong FC, AFL) managed by the City of Greater Geelong and the major solar panel inclusion at Metricon Stadium (Gold Coast FC, AFL). Australia's sport industry is ripe for environmental leadership and stewardship practices due to its national standards and environmental pressures.

1.3. Concluding remarks

The landscape of sport organizations has changed dramatically over the past years. The trend is for organizations to increasingly implement more and expand on current environmental initiatives. This focus on the environment will continue to be on the agenda of various sport organizations not only

because of shift in social values, but also because of new expectations from a variety of stakeholders. Additionally, the adoption of such activities provides sport teams and venues the opportunity to save money by shifting to more efficient and environmentally friendly operations. In spite of growing opportunities for certification and regulation, the sport industry has positioned itself as a leader in the movement and made it their responsibility to address environmental sustainability. Sustainable efforts allow sport organizations to reduce the ecological footprint of sport and the associated activities. Considering the growing government intervention and mandatory requirements for certain certifications (e.g., LEED), it would be beneficial for sport leaders to make themselves familiar with and continually monitor mandates. Sport organizations need to develop relationships and establish long term partnerships with industry experts, particularly in the field of solid waste management and the development of energy and water-efficient technologies. This paper brings attention to the aspect of environmental sustainability in sport, which has received very little attention in the academic literature, but should be considered by sport managers and leaders. Sustainable practices in the sport industry have the potential to promote public commitment to environmental protection. In a global society that is increasingly aware of ecological degradation caused by businesses, sustainable sports offer society a platform from which to address these issues and contribute to a sustainable future.

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