

RAISING ENVIRONMENTAL RESPONSIBILITY AND SUSTAINABILITY FOR SPORT EVENTS: A SYSTEMATIC REVIEW

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ABSTRACT

Sport events and associated venues impose a significant impact on the environment. Athletes, coaches, officials, athletes' entourage, and spectators travel to sport competitions using planes, trains, buses and cars. This inherent travel component results in greenhouse gases and has a significant impact on climate change. Sport event merchandise, sporting goods and equipment produce a plethora of products that require natural resources. All of these, and many more sport event related activities, have environmental consequences such as waste production, land, air and water pollution, and deterioration of the natural environment. New ways of encouraging environmentally responsible practices and climate change mitigation are globally emerging with efforts to construct sport event venues with materials that cause minimal harm to the environment, choose environmentally friendly air-conditioning facilities and utilise renewable energy resources. However, these efforts represent the beginning of a long journey to establishing benchmarks and encourage changes in event manager's and event consumer's behaviours toward environmentally friendly sport events and venues. This special issue advances dissemination of research output in this critical and under-researched field and contributes to our theoretical and empirical understanding of the environmental issues of sport events and their management.

KEYWORDS

Sustainability; Sport events; Environmental awareness; Environmental sustainability

IMPETUS TO THIS SPECIAL ISSUE

It was late November in 2013 when, during a casual conversation over lunch at a conference break with the editor of a highly respected sport management journal, it became apparent that ES was becoming 'a buzz expression' within the circles of sport and event management. ES was here to stay. Apparently, according to her well-educated insight, the need for researchers to advance knowledge in this space was imminent. Intrigued, the editors of this special issue left the conference thinking 'what do we know about ES issues in relation to sport, sport events and sport management'? And, 'how can we raise environmental responsibility awareness to foster

the impact of our work'? The impetus to compile this literature review and subsequent special issue emerged naturally from that point on.

Following a systematic review of existing studies on sports ES and in search for when it all began; it appears that the mid 2000s marked the beginnings of reported efforts (i.e., Anderson, 2006; Falt, 2006) to make a case for investing in greener sports events. Given the lack of much scientific evidence at the time, these works were predominantly supported by industry led examples. In fact, during the mid- 2000s the National Football League (NFL) started to operate the Super Bowl carbon-neutral free. Nike, a multi-national sports apparel company, began recycling old shoes to produce new basketballs, tennis courts, and athletics tracks. Even though the International Olympic Committee (IOC) partnered with the United Nations Environment Programme (UNEP) in 1992 in order to strengthen its commitment to the environment, it wasn't until 2003, when it initiated the Olympic Games Global Impact project. The aim was to create, measure, and report on Olympic Games environmental protection commitments (Olympic Oversight Interim Report Card, 2007). In 2006, the IOC published the Sport, Environment and Sustainable Development guide (IOC, 2006) and the Turin 2006 Winter Olympic Games included the environment in both the lead-up to the event and its legacy. For the first time in the history of Fédération Internationale de Football Association (FIFA), the soccer World Cup held in Germany 2006 addressed environmental concerns. By doing so, the German Organising Committee had the objective of making a long-term and lasting contribution to the improvement of environmental protection in hosting a mega-sporting event (Dolles, & Söderman, 2010). The bottom line was that multinational companies like Nike, as well as major sporting event organisers like NFL and the IOC, have begun to turn their attention to the impact of sport on the natural environment (Babiak & Trendafilova, 2011), and were pointing the way toward the future of a growing industry, the sports industry; an industry that represents a strong tool for advocacy for sustainable practices.

Even though environmental sustainability had previously been discussed in the context of the Olympics (e.g., DaCosta, 1997; Lenskyj, 1998), a decade passed before more depth and diversity in empirically derived publications on environmental sustainability made an appearance. Our review revealed four refereed journal publications in 2009 (i.e., Brymer, Downey, & Gray, 2009; Collins, Jones, & Munday, 2009; Dingle, 2009; Otto, & Heath, 2009), with three of them pioneering the way toward environmentally sustainable sporting events. Specifically, Brymer et al. (2009) examined extreme sports as a precursor to environmental sustainability and discussed the connection between extreme sport participants and the natural environment. As participants' activity was connected so closely to the natural environment, they became advocates of its protection. Collins et al. (2009) discussed two quantitative approaches to assessing the environmental impact (Ecological Footprints) that are associated with sporting events. From their work, it can be said that inevitably, because of the realised impact that sporting events have on the environment; sports organisations would eventually incorporate more sustainable development commitment into their operational strategies. This would in turn place pressure on public sector bodies to develop laws regarding the same. Therefore, quantifying these effects would become more and more important. On a similar note, Otto and Heath (2009) explored the potential contribution of the 2010 Soccer World Cup to climate change. A key finding of their study was that the various stakeholders were not aware of the contributions their operations make to climate change. However, when these contributions were

linked to an event, such as the 2010 Soccer World Cup, greater consideration was given to this phenomenon in their business operations. Hence, at its embryonic stage, research on sport event sustainability practices begins to concur that with increasing concern regarding global climate change, there is a growing need to ensure responsible management practices for mega events that take cognisance of the realities and challenges regarding this phenomenon.

Following these initial empirically informed efforts, the studies of Cheryl Mallen and her colleagues from Brock University, in Ontario, Canada during 2010 and 2012, offer a seminal input on ES and sport events. Despite calls to reduce the environmental impact of major sporting events, comprehensive measurements, evaluations, and reports on ES within the sport sector were still rare. That was when a much needed and well timed study from Mallen, Stevens, Adams, and McRoberts (2010) assessed the environmental performance of the 42nd International Children's Games and demonstrated a high level of effort towards initiating an ES movement within the Games yet achieved a weak to moderate level of environmental performance. They explain that the host faced structural, systemic, and cultural barriers that inhibited the ability of organisational members to implement ES strategies. With a shift in focus from the US to South Africa, Ahmed and Pretorius (2010) used the example of the 2010 FIFA World Cup's 'Green Goal' program to draw strategies on ways to integrate environmental considerations in the planning and design of events, including the legislation of strategic environmental management tools to assess the nature and scale of mega-events. A year later, Mallen, Stevens, and Adams (2011) published a systematic examination of the extent of ES research within selected sport-related journals to identify areas of under-emphasis and make recommendations for future research directions. They concluded that the number of sport-related journal articles focusing on ES was insufficient to deal with the challenges and emerging issues, as they still are. Despite their advocacy for greater engagement from academics and researchers around the globe, contributions in the field remained scant and it was clear that only a small number of (established as experts in the area by this stage) academics, were likely to engage with this type of research and dominate the field.

Following suit, Paquette, Stevens, and Mallen (2011) published their inquiry on ES practices within the IOC and reported findings on how the concept of ES has been defined by IOC and enacted by the Organising Committees of the Olympic Games (OCOGs) from 1994 to 2008. Their study provided evidence of how poorly the Olympic Movement met the goals of its Agenda 21 (a plan of action in order to protect the environment) initiatives and revealed that ES practices within the Olympic Movement were highly problematic. The authors concluded that "despite advances in environmental management scholarship during the past decade, a cohesive body of ES literature still does not exist. Further research is needed to enhance our understanding of ES, specifically CEM [Corporate Environmental Management] approaches and particularly, within international sport events" (p. 364). Although not directly related to sport events, Spector, Chard, Mallen and Hyatt (2012) offered a significant insight on environmental management issues when they examined the USA ski industry and the Ski Resorts Environmental Communications (SRECs) stated on each of 82 resort websites. Their analysis found that 24% of the 82 ski resorts were inactive, 10% reactive, 23% exploitive and 43% proactive with respect to environmental communications. Their findings led them to suggest that there is no standardised Environmental Management System framework in the skiing industry that could pave the way for their improved environmental performance.

In 2012, and perhaps for the first time since 2009, we see a new group of researchers (Casper, Pfahl, & McSherry, 2012; Kellison, & Mondello, 2012) entering the field and taking on a new approach to studying ES. Casper et al. (2012) and Kellison and Mondello (2012) undertook ES studies from an organisational perspective in relation to the sustainability strategies, practices and perspectives within athletics departments at U.S. National athletics institutions and in terms of financing sport venues respectively. Then in 2013, for the first time, Preuss (2013) asked the question: ‘How realistic is it to expect that mega events can contribute to a green legacy?’ In his evaluation he argued that the content of the green programs varies widely between host cities and events, from offering “flagship projects which are highly visible (e.g., carbon neutrality) to less visible projects such as use of solar energy for public transport” (p. 3589). He suggested that the first step towards greener events is taken when the international sport governing bodies include environmental protection as a strategy. By making ES a requirement, a candidate city cannot afford not to offer a good environmental program in their bid to host a mega event. Preuss (2013) suggested that the second step in promoting a green sporting event is to ensure that the promises made by the successful candidate are fulfilled. Of course the challenge here is that this goal usually gets sidelined in an effort to deliver a successful event. Therefore, unless ES is not enforced and monitored by a governing body or a committee and until organisers develop an appreciation of ES practices, there will be no change.

The same year, and notably for the first time, Corporate Social Responsibility (CSR) in relation to the ES of sport events appears in the refereed journal tabloids twice (i.e., Kim, 2013; Trendafilova, Babiak, & Heinze, 2013). In his paper, Kim (2013) explored the marketing communication content of commercial organisations that were associated with the London 2012 Olympic Games on the basis of their CSR and ES objectives. He found that various Olympic stakeholder groups, including the organising committee, corporate partners and broadcasting companies, had become more interested in the environmental aspects of sustainability over the years. MacIntosh, Apostolis, and Walker (2013) turned their focus on the customers of a mountain resort (an approach very commonly applied in hospitality studies) and their expectations and motives regarding environmental responsibility. They found that customers expected the provider to be environmentally responsible yet, they did not actively seek organisational information. It is quite likely that the combination of low information seeking as well as low information dissemination was obstructing the organisation from capitalising on their environmental responsibility initiatives. Last but not least, in an effort to understand and increase spectator participation in recycling efforts while attending large-scale sporting events, McCullough’s (2013) findings indicated that recycling at a large-scale sporting event has nuances that differentiate the context unique from other settings (e.g., household and workplace recycling).

Kellison and Kim (2014) examined the appropriateness of the triple bottom line (TBL) to reflect on the environmental, social, and economic benefits of pro-environmental initiatives. The authors found that professional sport organisations place particular emphasis on the TBL’s social component, which represents the objectives of increasing environmental awareness among fans and attracting new consumers. Besides their contribution, it would appear that 2014 was the quietest year in terms of publications in the field since 2006. We can only imagine that most saved their research for this special issue!

THE CONTRIBUTIONS IN THIS ISSUE

As the systematic review reveals, a current, yet considerably under-researched, topic in sport is the push for sport organisations to reduce the negative impact of sport facilities and events on the natural environment. It is quite likely that perceived cost barriers associated with adopting sustainable practices deter the adoption of green design principles. As a result, professional sports, teams, and facility owners choose the 'less costly' and 'more visible' options like recycling and using composting bins (McCullough, 2013). The construction of new or refitting of existing sport facilities using (a) eco-friendly and environmentally sustainable practices, along with (b) pro-environmental activities, such as recycling, could inspire social change among spectators and fans. Using their access to key individuals in the industry, Kellison, Trendafivola, and McCullough (2015), in the first paper of this special issue, interviewed stadium architects involved in the 'greening' of venues to explore whether the environmental movement influences decision-making in sport. The paper investigates the link between pro-environmental sports stadiums and social change (i.e., whether social change was driving green building in sport, or vice versa). In their results they report (a) how early adopters of sustainable stadium designs were influenced by the rising tide of social interest on environmental issues, and (b) that pro-environmental sport facilities were the drivers (as opposed to the products) of social change. Sport sociologists have long proclaimed the reciprocal relationship between society and sport. It is far from novel to see examples where social change influences the way sports are organised and played. At the same time there are numerous examples where changes in sports influenced the ways society is organised. Social and sport related changes go hand in hand. The originality of Kellison et al.'s (2015) work rests on the fact that we now have evidence that suggests that this reciprocal relationship applies on ES related issues too. The question remains 'why the influence of social change on green sport venues varies so greatly?'

As in our earlier section the systematic review indicated, there are perceived and actual costs that are associated with green stadiums. Fundraising programs and private donations are a form of financial assistance toward supporting these initiatives that has been gaining momentum in the US. In the second paper of this issue, Jin et al. (2015) examine the factors that are associated with donor intentions toward green stadium initiatives. Social exchange theory suggests that when the perceived benefits outweigh the costs an individual or stakeholder would have positive attitudes toward a certain issue. On that premise, collegiate athletics donors can be motivated to contribute if they are given tax deductions, priority seating and parking, and opportunities to leverage on social and professional contacts. Extrinsic motivations aside, what exactly are the donors' beliefs, behaviours and reactions toward financially supporting green stadiums? Jin et al. (2015) suggest that both donation attitude and social norms are strongly and positively associated with behaviour intention toward supporting green stadium initiatives. Their work makes a significant contribution toward understanding college donors' behavioural intentions. An interesting finding and potentially a point of departure for future investigation is that female donors are more likely to support green stadium initiatives. While the issue of whether altruism is innate or the product of socialisation is not addressed in the paper, these results imply that women bring extra willingness to support environmentally sustainable practices for altruistic reasons.

Besides external input (e.g., donations), the capacity to achieve sustainability strategies rests on the organisation's ability to harness its internal resource (including staff and organisational

processes, like environmental planning) (Misener & Doherty, 2009). In the third paper of this issue, Casper and Pfahl (2015) challenge the level of awareness, knowledge and skill set of sports personnel (e.g., facility managers) within Division III athletics' departments to take on the challenge of actioning sustainability planning goals. Personnel perceptions about the environment can shift and redevelop through changes in societal norms and intrapersonal reflection (Pfahl, 2011). More importantly, preconceived attitudes or values towards environmental causes and behaviours predict environmental behaviours at a sport event (Casper et al., 2012; Pfahl, 2011). Driven by the quest to provide answers to their questions, and building on their past work, Casper and Pfahl (2015) examined the environmental sustainability practices, strategies and personal perspectives with US Division III athletics departments' personnel and compared their findings with those of Division I. In their results they report that the main concerns for DIII environmentally sustainable initiatives relate to staff having too little expertise, skills, awareness or even motivation to address them. These findings highlight organisational resource weaknesses and the main thrust of their results points toward the need to increase awareness and knowledge on actioning environmental initiatives.

In this issue so far we have been informed on how – as the environmental movement grows – sport organisations, their planning processes, staff working within them and external stakeholders can all contribute toward the planning, financing, or implementation of green stadium and event related initiatives. In the next and last paper for this issue, we discover that there is much more to learn about environmental sustainability in the context of sport, venues and events than we ever thought before. In fact, this issue would have been incomplete without the contribution of Raybould, Anning, Fredline, and Ware's (2015) work. In the fourth and last paper, Raybould and his colleagues compel our readers to 'put their hats and sunglasses on' as we travel from the athletics colleges in the US to Australia and the shorelines of the Gold Coast, in Queensland, down under. Urban beaches offer spaces for (a) unstructured and structured leisure and sport activities, (b) tourist activities, and (c) organised participant and spectator events. However, government agencies globally are called in to weigh the social and economic benefits against the costs of providing usable beach space. In this equation, climate changes put greater pressure on government decisions, policies and actions that affect the future use of beaches as sport event venues. Beach erosion and climate change pose long term threats to their sustainability in many areas of the world. It is only through a coordinated response by all levels of government that coastal management adaptations will safeguard their future (free of charge) availability. Raybould et al. (2015) investigate the most pressing ES threats at the Gold Coast beaches. Then, they reveal well supported strategies that event and coastal managers can apply to minimise the impacts of climate change and ensure the future viability of organised and unorganised sport events on beaches. One of the most attractive options they put forward is programs like beach nourishment that help restore and increase the resilience of popular beaches to climate changes. In their seminal departing point they conclude that consumers are tolerant of changing beach conditions if they are informed and understand that it is a natural process.

CONCLUSIONS AND FUTURE RESEARCH AGENDA

The collection of papers in this issue contributes empirically to Pfahl's (2011) recommendation to offer practical suggestions to sport, event, and facility managers, on adopting a strategic approach to raising environmental awareness among spectators and fans and community members. As the sport event industry flourishes, sport managers, academics and practitioners, share the responsibility to earn credibility among communities, spectators and fans, large corporations or small local businesses, sponsors with naming rights or young children aspiring to represent their countries. Only then we know that the industry is growing toward the right direction; a direction that is respectful of all these entities and their futures. This special issue is opening the discussion toward a sustainable direction and advocates, that as society is becoming increasingly aware of climate change sustainability issues relating to sport facilities and events their attitudes change. Grasping this social transformation in its infancy becomes an increasingly contested area of discussion with important repercussions for the proliferation of sport facilities and attendance at sport events. Our message is clear: 'Let social change inspire and drive positive changes in the sustainability of sport event and facilities'.

In other concluding observations, in this issue along with previous works, we witness a concentration of contributing authors dominating the field. Also, it is hard to fail noticing the immense efforts made by the North American sport industry - sport teams, leagues and venues - which shows their readiness and willingness to improve their environmental impact on their communities (Nguen, 2013). In the end, we concur with Nguen (2013) in that sport is global. Consequently, environmental awareness, education and action are central to inspiring the industry and ultimately strengthening the link between sport and environmental protection in more countries. More countries, more sport managers, more sport event stakeholders practitioners and certainly even more researchers need to move beyond the presumption that the answers to all the environmental issues reside within governments (Nguen), and it's time we took ownership on the issues at hand.

In 2011, Mallen et al. (2011) suggested that despite the progress of environment-based management studies, we still have a limited understanding of whether a similar research agenda exists within the sport discipline. As it turns out, four years later, advancements in the field remain slow and a lot of questions linger unanswered. A lot of our understanding remains anecdotal ... and although the industry and practitioners move fast in adopting their practise to respond to CSR demands or TBL standards, empirical research and theoretical underpinnings that are required to support practice are lagging behind.

Although the contribution of this issue is multilayered, there are several sport event related activities or stakeholders that have environmental consequences, such as waste production, land, air and water pollution, and deterioration of the natural environment, that remain unexplored. Consequently, this special issue represents the mere beginnings of empirical enquiries required in order to establish benchmarks and encourage changes in event manager's and event consumer's behaviours toward environmentally friendly sport events and venues. Mallen et al. (2011) argued that "progress over time in sport-ES research can be measured by the incidence of sport journals special issues on ES" (p. 253). This special issue represents a step toward the right direction. We wish to thank the editor of the *International Journal of Event Management Research*, Associate Professor Charles Arcodia, for the opportunity to compile this special issue

and all the contributors for their professionalism, hard work and timely delivery of papers for publication.

Sometimes, we academics, despite all our years of training, research and experience, can only marvel at how little we really know... we anticipate that the readers of this issue will find the papers engaging and hope that this work will stimulate further research interest to expand endeavours in uncovering the complexities of sport event related environmentally sustainable practices.

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