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THE GREENING OF THE OLYMPICS: AN EXAMINATION OF THE KEY DETERMINANTS FOR POSITIVE ENVIRONMENTAL AND SOCIAL OUTCOMES

ABSTRACT
Mega-sporting events have significant environmental and social impacts. The ‘greening’ of the Olympic Games and the minimisation of the negative impacts has become an increasing priority of event organisers in the last decade. The aim of this paper is to expand the understanding of the environmental and social legacies of the Olympic Games by examining stakeholders’ perspectives. The paper found that the bidding process is a crucial determinant of green legacies; embedding sustainability in the vision, mission and branding of organising committees is important; embedding sustainability in various aspects of Olympic Games organisation is an important practical application of a sustainability vision; and knowledge transferred from one Olympic Games to the next allows newer host cities to enhance green legacies.

KEYWORDS
sustainability, triple bottom line

INTRODUCTION
Many cities around the world vie to host large-scale sporting events like the Olympic Games (OG), the World Cup and the Commonwealth Games. Such mega-sporting events are seen to benefit the host city in various ways, such as through the promotion of tourism and economic growth. In recent years, the OG has developed into one of the most significant if not the most significant mega-sporting event held internationally (Malfas et al., 2004). The summer OG brings together over 10,000 athletes from over 200 nations to participate in more than 300 events. The sheer scale of the event ensures that the host city is impacted long after the OG has come and gone.
The impacts of mega-sporting events can be significant and numerous. These events can produce positive outcomes for host nations, referred to as legacies, in relation to image, economy, tourism and infrastructure. The Olympic Charter states that part of the role of the International Olympic Committee (IOC) is ‘to promote a positive legacy from the Olympic Games to the host cities and host countries’ (IOC, 2010: 1). The IOC (2010: 1) acknowledges that ‘legacy’ is a complex subject, ‘as many of the benefits of an event may not be seen until years later, some may be dependent on continued support from local authorities once the Games Organising Committee has ceased to exist and others may be difficult to measure but are felt by the local population’.

Malfas and colleagues (2004) argue that the most important reason behind the decision of a city to host a mega-sporting event is the potential positive impact of the event on the local economy, which in turn can improve the social conditions of the host community. At the same time, the hosting of these events can have significant environmental impacts. Given the many thousands of kilometers travelled to attend the event, not only by the numerous athletes and their coaches, but also by Olympics officials, worldwide media representatives, sponsors and spectators, the OG represent a massive use of resources and energy (Liao & Pitts, 2009). In 1996, the IOC acknowledged the potential negative environmental impacts and modified the Olympic Charter to ‘[e]ncourage and support a responsible concern for environmental issues, to promote sustainable development in sport and to require that the Olympic Games are held accordingly’ (IOC, 2007: 16). While concerns about negative environmental and social impacts of the Olympic Games have been raised by scholars (see, for example, Halls & Hodges, 1998; Lenskyj, 2000; Malfas, et al., 2004; Ruthheiser, 2000; Weicker, 2003), research on the environmental and social legacies of the Olympic Games is relatively scarce (Tian & Johnston, 2008). The aim of this paper is to expand the understanding of the environmental and social legacies of the Olympic Games by examining stakeholders’ perspectives on the social and environmental initiatives and outcomes of three Olympic Games: Beijing 2008, Singapore Youth Olympics 2010 and London 2012. The paper first reviews the history of the ‘greening’ of the Olympic Games, followed by a description of the methods used in the research study. It then discusses the approach of each of the
three Olympic Games to creating environmental and social legacies and concludes by discussing the key determinants for positive environmental and social outcomes from the Olympic Games.

THE GREENING OF THE OLYMPIC GAMES

The institution of the modern Olympic Games (OG) was established in 1896 by Baron Pierre de Coubertin, a visionary educator who claimed that international sport could foster individual and collective goodwill and even contribute to world peace. The modern OG was revived as an expression of this ideology and philosophy that Coubertin called Olympism. The goal of Olympism is to ‘Place everywhere sport at the service of the harmonious development of man, with a view to encouraging the establishment of a peaceful society concerned with the preservation of human dignity’ (IOC, 2007: 12). The wording of the Olympic Charter suggests that social considerations were at the forefront of the Olympic Movement (IOC, 2010b) from the beginning. In regards to environmental considerations, before the 1990s, such issues did not feature strongly in the OG decision-making process. The first environmental impacts study of the OG are those of Lake Placid in 1980. In the 1990s, increased awareness of the importance of energy and environmental protection issues actively conveyed by the media led to a change in opinions. The Olympic Movement and the environmental movement were seen to share the common ideal of building a ‘better and more peaceful world’ for humanity (IOC, 2007: 12). The IOC felt it had a duty to foster environmentally sound activities within the Olympic Movement and beyond.

In 1994, the IOC signed a cooperation agreement with the United Nations Environment Programme (UNEP) to develop joint initiatives. That year, ‘environment’ was approved as the third pillar of Olympism following ‘sport’ and ‘culture’. In 1996, the Olympic Charter was modified to acknowledge the environment. An educational dossier for an environmental awareness campaign within the global sports community, the IOC Manual on Sport and the Environment, was released in 1997 (IOC, 2005). Each of these documents advocated for sports activities to take place with due respect for the environment and in the spirit of sustainable development, and pledged the commitment of the Olympic
Movement in this regard. Most of this content has now been integrated into the Bidding Manual and the IOC’s criteria for host city selection (IOC, 2010).

Since 1994, candidate cities of both summer and winter OG have been evaluated on their environmental plans. The IOC’s bidding procedure encompasses issues of environmental protection, environmental impact measurement, Olympics legacies and ecological studies. Although formal expectations for environmental sensitivity and sustainability are expressed generally enough to accommodate the specific circumstances of candidate cities, the driving forces are now expressed forcefully through the expectations of the public, NGO representatives and governments (Liao & Pitts, 2009).

These expectations have also led to the creation of the OG Impact (OGI) Study. The IOC initiated this study to assist the needs of organising committees (OCOGs) in this area. The principal objectives of OGI are: to measure the overall impact of the Olympics; to assist bidding cities and future OG organisers through the transfer of strategic directions obtained from past and present OG, and to identify potential legacies thereby maximising the benefit of the OG. The Beijing Olympics organising committee completed the study and three other OCOGs are conducting the study: the Vancouver Olympic organising committee, the London organising committee and the Sochi organising committee.

While there is an abundance of research on the OG (Kornblatt, 2006; Mahon, 2007; Fowler, 2008; Poynter, 2006; Gratton, 2006), research on the environmental and social legacies of the OG is relatively scarce (Tian & Johnston, 2008). The hosting of the OG has also been seen as an opportunity for a city to create environmental and social improvements in relation to urban design (Liao & Pitts, 2009) and social conditions (Mol, 2010). Other efforts at greening the OG for lasting positive effects are evidenced in studies on the Beijing OG. These studies examine the legislative changes made (Loh, 2008) and other efforts to curb air pollution (Fang et al., 2009; Shen et al., 2010; Wang et al., 2010) that took place for the OG. They indicate that while there has been improvement in environmental conditions as a result of these initiatives, it remains to be seen if the positive effects will last.
From the perspective of a host city vying to host the OG, having a sound green proposal has been key to a winning bid since then (Fang et al., 2009). Beijing is seen to have lost its initial bid to Sydney for the 2000 OG because of this (Beyer, 2006). However, other studies of the Mexico City, Los Angeles, Atlanta and Athens OG showed mixed results and did not confirm that a green proposal leads to a winning bid (Beyer, 2006; Tian & Brimblecombe, 2008). In their analysis of how air quality was managed for the Beijing 2008 OG, Fang and colleagues (2009) suggest that by design or by coincidence, the OG have become grounds for nations to test ideas and models for sustainable development.

Tian and Johnston (2008) highlight gaps in the academic literature about how socio-cultural and environmental benefits of the OG are maximised for host cities. Their research study shows that there is opportunity both to understand and also optimise those aspects of the event associated with environmental and social sustainability. One of the ways in which those aspects could be better understood is to explore the perspectives of the relevant stakeholders in the greening of the OG and the green legacies that might follow.

METHODS

The three most recent and current summer OG were selected for study. Beijing is the host city of the most recently completed full summer OG. As a host nation, China aimed for a green Olympics in 2008. Heightened demand led stakeholders of the OG to make greater efforts than at any other OG prior to introduce environmental and social sustainability initiatives as part of their roles (Liao & Pitts, 2009).

The inaugural Youth OG held in Singapore in 2010 marked the beginning of a new branch in the Olympic movement (IOC, 2010). A study of green initiatives and outcomes (current and predicted) of these OG as well as embedded sustainability considerations in the way the OG were conceptualised and implemented will add further insight into how the Olympic Movement is evolving to include or recapture sustainability considerations.
Looking to the future, preparations for the London 2012 OG are currently taking place. This OG claims to be the most holistic in the area of sustainability of any OG in history (London 2012, 2010a). In exploring the strategic intent as well as initiatives and intended outcomes in the areas of environmental and social sustainability within these OG, the evolving roles and motivations of stakeholders in the greening of the OG may become clearer. Comparisons and contrasts of information on all three cases allow for an analysis of such sustainability considerations within the OG and how these are being leveraged to create green legacies.

Interviews were conducted with nineteen stakeholders from the three OG between the months of June 2010 and September 2010, including: the International Olympic Committee (IOC), the United Nations Environment Programme (UNEP), local NGOs, host city governments, international and local media, corporate sponsors and partners, and the Organising Committees for the OG (OCOGs) (see Table 1). Each of these stakeholders plays a role in the greening of the OG and its legacies (Liao & Pitts, 2009). All interviews were recorded and transcribed. The transcribed interviews were coded to draw out key themes (Patton 2002), which are discussed in the next section.

Secondary data were collected on the green activities and functioning of the different stakeholders, the historical background of their involvement with the OG, economic, political and aesthetic contexts of this involvement. The sources were publicly available documents such as company, media, and IOC reports as well as academic sources in the form of books and peer-reviewed journal articles. Information was sought through the UNEP online library, reports by organisers in host cities, press releases, and reports by sponsors and partners.

**RESEARCH FINDINGS**

The key findings from the research study are: the bidding process is a crucial determinant of green legacies; embedding sustainability in the vision, mission and branding of organising committees ensures a focus on achieving green legacies; embedding sustainability in various aspects of Games organisation is an important practical application of a sustainability vision;
and knowledge transferred from one Games to the next allows newer host cities to enhance green legacies.

The importance of the bid process

Across all three cases, bidding for the Games and honouring the promises made during the bidding phase are seen to be crucial to achieving green legacies. Two IOC interviewees and an NGO representative emphasised how bidding has evolved to increasingly incorporate environmental commitments and how this has resulted in legacies for host cities. An interviewee on the IOC Evaluation Commission panel with long-standing involvement in environment and sustainability considerations within the Olympics described a positive trend in terms of the breadth and depth of environmental commitments that constitute bids and host city contracts. According to this interviewee, once a city wins the right to host the Games, it is seen as honour-bound to meet those commitments. Where it is unable to do so, changes are negotiated with the IOC so as to minimise any adverse effects that may result.

Apart from how sustainable the Games end up becoming, the bid also plays a role in initiating legacies by virtue of the bidding process. In the case of London, in 2004, in his Transport Strategy, the Mayor of London stated the goal to reach a forty percent increase in rail and tube capacity. Bidding and aiming to win gave this goal a strict deadline leading to a positive legacy for the city (London Civic Forum, 2004).

According to an IOC interviewee, using the term ‘legacy’ within bidding criteria has had both the effect of increasing host city commitment to environmental initiatives for the Games as well as focusing the attention of organisers on the green legacies of such activities. This interviewee stated,

Since we introduced the term legacy into the lexicon of bids and Games planning and operation in the nineties and late nineties, then every Games has got more deep and wide in terms of its environmental and sustainability commitments, and along with that has gone an increasing trend I
guess not away from environment but an expansion from environment to sustainability (OLYMPICS 2).

With environmental and sustainability issues gaining greater prominence in the Olympics bidding process, questions related to this point within the Bidding Manual have been expanding both in quantity and the level of detail. Cities are also asked to elaborate their key environmental action plans at a holistic level as well as for individual projects (IOC, 2010). An initial environmental impact assessment for all Olympics venues and facilities is required, to be presented together with relevant studies during the site visit of the Evaluation Commission (Liao & Pitts, 2009). To one London NGO interviewee, this section of the bid requirements was not sufficient to reflect the vision that London 2012 had for sustainability within the Games and beyond. This interviewee described his position as follows:

At the time of writing the bid, because the IOC’s requirements for submitting a bid were sort of quite old-fashioned in terms of what you had to say about... there was a section called ‘Environment and Meteorology’ where you have to kind of convince them that the weather is going to be ok for hosting the Games and environment was sort of in that category, and because London wanted to do something ambitious in terms of sustainability, that section didn’t enable them to do justice to that vision they were trying to create. So they produced with us this document called ‘Towards a One Planet Olympics’ (NGO 1).

Singapore’s response to these aspects of the Bidding Manual was to follow in London’s footsteps. A media interviewee who was heavily involved in analysing and covering Singapore’s bid stated:

When Singapore bid for the Youth Olympic Games it used the same tactics as London... when they were making the bid, Singapore was also saying, ‘we want to leave a legacy’, we want to leave a legacy for the kids in Singapore, we have a lot of grassroots support (MEDIA 1).

On the environment aspects of Beijing’s bid, the Evaluation Commission noted:

Beijing currently faces a number of environmental pressures and issues, particularly air pollution.

However, it has an ambitious set of plans and actions designed and comprehensive enough to
greatly improve overall environmental conditions... Although many of the plans are not Olympic-specific, the bid has provided, and a Beijing Games would provide, an impetus and a catalyst for many measures, and their timing... The Bid Committee claims the Beijing and OCOG environmental plans and actions will leave the greatest Olympic Games environmental legacy ever (UNEP, 2009: 25).

This source indicates that Beijing’s response was to align its sustainability commitments as closely as possible with already established national objectives. In all three cases, responses to criteria at the bid stage set the scene for environmental and social sustainability initiatives and legacies.

**Embedding sustainability in vision, mission and brand**

Another increasingly prevalent phenomenon within organising committees of the Games is the embedding of sustainability considerations within their vision, mission and brand. This is seen by interviewees to have begun with the Sydney 2000 Olympics. To Singapore organisers, this aspect was viewed as crucial in achieving their goal of an ongoing educational legacy post-Games. An influential OCOG representative explained,

> We asked ourselves, what are our own values? And in the end we came up with six values, three of which are the same as the Olympics values... Integrity: we always felt it was important to be truthful, don’t do it for show. So when we do the project, we need to be very clear why we are doing it. And if we meant it that this is for youth development, then we better make sure that’s what it’s for, and not just for show to see the youth being involved. And I think that’s very important, because otherwise when you are doing things for show... it comes across and you are not going to touch the heart, it’s not going to be seen and we know it’s not going to last (OLYMPICS 4).

Two OCOG representatives and the UNEP interviewee saw the Singapore OG event not as an end in itself but as a means to realise a grander vision of lasting social benefit for the nation’s people. Similarly, Beijing envisaged a ‘Green Olympics’ and a ‘People’s Olympics’ as part of its bid
commitment towards a sustainable Games. The realisation of these commitments was surrounded by various controversies which called BOCOG’s mission into question. While the UNEP representative, an IOC representative and two sponsor interviewees were quick to point out how successfully the Games were greened and the validity of BOCOG’s vision, other interviewees had differing views as to the authenticity of this form of branding. One IOC interviewee felt that Beijing successfully realised this mission, however it was not well communicated. This interviewee explained,

_In Beijing if you look at the different things they did, you could definitely say it was sustainability sure, however the organising committee was primarily environment and the government was more sustainability but they didn’t call it that, in fact, they didn’t call it anything really_ (OLYMPICS 1).

Another interviewee who was part of the corporate sponsor body for the Games believed that the slogans were more about showcasing the nation as committed to sustainability than they were reflective of the reality of BOCOG’s intent. This sponsor is of the view that pertaining to its sponsorship role, London’s vision is being translated into a greater commitment. This interviewee explained,

_Although Beijing called it a green Games, there wasn’t the same commitment level to sustainability and the environment as the London Games have. So within the London Games it was something that was a key criteria for signing up any partner_ (SPONSOR 1).

An NGO interviewee has a similar view of London 2012. This interviewee stated,

_The thing I think they did really well was in the beginning, they made sustainability part of their original vision, they engaged with a wider sector of the community than had traditionally happened with the Olympic Games_ (NGO 1).

**Embedding sustainability in Games organisation**

Embedding sustainability considerations in the way the Games are organised is another crucial step for the realisation of green goals. Organising committees now include environment and legacy units to implement and advocate for green initiatives and legacies. An IOC interviewee commented,
There has always been a concern for the environment and the athletes etc, but it’s definitely increased over the last ten years or so... a lot of it manifests in the organising committees. There has been a change... before a lot of them had environmental functions with one or two or three people, now we have sustainability functions with eight, ten or twelve people that work with a multitude of organisations outside the organising committee and they have a lot larger scope than ever before (OLYMPICS 1).

Such work with organisations outside the organising committee is best exemplified by London 2012’s collaboration with environmental NGOs throughout the course of planning and preparation for the Games. An interviewee from this stakeholder group placed emphasis on their role in maintaining a commitment to sustainability as core to the principles of the Games.

During the planning and preparation phase of the Games, ensuring that supply chain and procurement procedures are sustainable is another way of embedding sustainability within Games organisation. For the Singapore Games, the organising committee took the approach of putting in place guidelines and best practices such as a sustainable environmental policy, green checklists, and incorporation of environmental considerations in procurement contracts. An environmental working group was set up that provided expertise and professional input, as well as assisting in the execution of these guidelines. An OCOG interviewee explained that by having sustainability criteria for tendering in place, contractors providing materials for the Games were forced to seek sustainable sources as well as to conduct eco-friendly disposal of materials post-Games. These contractors were thus encouraged to engage in environmental best practice, a way of doing things that is transferrable to future events that they tender for. This interviewee explained,

So contractors get used to it after doing this event. The next event comes around and they know. They can recycle this... they know what to do with this material. There should already be sustainable best practices in place (OLYMPICS 7).

In this way there is lasting benefit for the workforce from having sustainability embedded in procurement procedures and invitations to tender.
The value of knowledge transferred

IOC, OCOG, government and NGO interviewees with involvement in Olympics from the year 2000 onwards pointed to the value of accumulated knowledge from past Games. This was seen as a way of learning what to do for future Games, and knowing what pitfalls to avoid in greening the Games. While the Vancouver winter Games of 2010 is not covered within this research study, its sustainability governance model for organisations staging mega-sporting events, reporting frameworks and sustainable sport event tool kit substantially contributed to the sustainability knowledge base for London and future Games. In the case of the Singapore Games, organisers see the inaugural Youth Olympic Games as having provided a solid foundation for future Games to build on. A Singapore government interviewee expanded on the idea of knowledge transfer between Games to include the transfer of personnel trained in creating and implementing sustainability initiatives from one mega-event to the next as a means of achieving a green legacy. The UNEP interviewee saw the knowledge transfer concept as applicable to corporate sponsors as well. As sponsors increasingly take part in the creation of green initiatives around their sponsorship of the Games, and green their companies through association with the organisation of a green Games, they generate new knowledge that other sponsors and similar industry players can learn from.

CONCLUSION

This paper analysed the approach of Olympic Games’ stakeholders to creating environmental and social legacies arriving at key determinants for positive environmental and social outcomes from the Olympic Games. The findings indicate institutionalization of sustainability in the OG. DiMaggio and Powell (1983, p. 148) refer to institutionalization as “the emergence and structuration of an organizational field as a result of the activities of a diverse set of organizations; and, second, the homogenization of these organizations, and of new entrants as well, once the field is established”. The media, supranational bodies such as the United Nations (Jenning & Zandbergen, 1995), the IOC, NGOs, governments and the public have all
been instrumental in driving the greening of the OG. In response to this coercive pressure (DiMaggio & Powell, 1983), the IOC has evaluated candidates on their environmental plans since 1994 and it is now a key criterion for winning a bid.

Normative and mimetic processes (DiMaggio & Powell, 1983) are also at play in the greening of the OG. To demonstrate credibility and legitimacy institutional members (IM) will conform to the demands of constituents by imitating the responses of successful peers (Herremans, Herschovis & Bertels, 2009). Each OG has learnt from previous OG and green legacies now appear to be a competitive driver in bids. Sydney won the 2000 bid over Beijing due to its sound green proposal. London upped the ante by releasing its Sustainable Development Strategy and 2012 Sustainability Plan ahead of other bidders. Singapore mimicked the tactics of London’s bid in its quest “to leave a legacy”.

Legitimation is a key strategy during the bidding process and in the organisation and operations of the OG. Bidding cities have to talk green to be seen as legitimate contenders to host the OG. They must also be seen to be learning from previous OG while demonstrating the potential for their host city to deliver even more legacies than the previous OG. However, positive legacies occur if key promises are delivered upon, which the research study did not evaluate. While this research study identified key determinants of green legacies, the findings could only be verified with longitudinal studies of actual legacies conducted in host cities long after the attention of the world’s spectators and media has moved on. Future research studies could focus on tracking critical stakeholders’ perceptions before, during and after each OG to determine the legacy effects of the greening of the OG, as well as verify, or not, the key determinants of green legacies identified in this research study.
REFERENCES


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Table 1: Stakeholders interviewed for research project

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