Organizing the Olympics is associated with the design and building of large sport facilities as well as the hosting of thousands of spectators and participants confined in a limited space over a relatively small period of time. This in turn introduces hardship and poses risks to the natural environment within which the Olympics activities reside (Chernushenko, 1994). Therefore, there is a need for addressing sustainability issues related to organizing and hosting mega events such as the Olympics. Some of those issues have been addressed (Belli, 2008; Lenskyj, 1998; Leonardsen, 2007), but there is still a rather scarce pool of academic work conducted in this area.

Some studies have focused on the environmental impact and management of the Olympic Games and the driving forces behind the International Olympic Committee (IOC) efforts to address the environment. Lenskyj (1998) critiqued the concept of corporate environmentalism in the IOC and her work is one of the first to examine the complex relationship between sport and the environment. Others such as Kearins and Pavlovich (2002) studied the role of stakeholders in greening the Olympic Games in Sydney, concluding that through the engagement of stakeholders, organizations can better understand and elucidate the different dimensions of the environmental challenges they face. Along the same lines, Beyer (2006) investigated the capacity of the 2008 Olympiad in Beijing to catalyze sustainable development reforms.

In recognition of the impact sport has on the environment, the International Olympic Committee (IOC) has adopted the environment as the third pillar of Olympism, along with sport and culture (Cantelon & Letters, 2000). The IOC is now publicly committed to promote sustainable development in sport and requires that the Olympic Games are held accordingly. In line with those efforts, in 1995 the IOC established the Sport and Environment Commission and has defined a set of environmental standards to be met by all Olympic organizers in different areas, such as solid waste, sewage, energy treatment and preservation of the ecosystem through its Manual on Sport and the Environment.

The aim of this study is to analyze the environmental performance of the three summer Olympics after the decision of the IOC to adopt the environment as the third pillar of Olympism. Our method consisted of obtaining the reports conducted after each of the Olympics (Sydney, Athens, and Beijing) and of conducting a comparative analysis of those reports. The IOC's Manual on Sport and the Environment was used as the baseline for this analysis since it provides the specific areas in which each Olympics are expected to positively perform environmentally and sets the guidelines for the evaluation process. Results identified the areas in which each Olympic Games achieved success as well as the areas in which they failed. In addition, we identify some of the obstacles in obtaining the necessary data for conducting an accurate assessment.

This comparative analysis shows that the attempt to integrate environmental initiatives into the fabric of Olympism has been mixed. Gains have been made, but much work remains to be done. Many of the aspects of environmental stewardship depend on appropriate sustainable methodology which requires continued long term planning and continued implementation. The IOC must begin a much more deliberate effort to work with its governing partners to contribute to the long term environmental sustainability of the Olympic Games host cities. Efforts must be implemented through the cooperation of the host governing bodies, in particular the national governing bodies in conjunction with their national environmental protection agencies. Concrete, long term regulation is necessary to ensure that goals and objectives have been met, and more importantly, that policy is enforced to continue sustainable management well beyond the conclusion of the Games. Only then will the IOC have approached its goal of respecting the ecological requirements of their hosts at all levels.