

NBA IN SERVICE OF ENVIRONMENTAL PROTECTION

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ABSTRACT

How can the role of sports be interpreted in the field of environmental protection and how can we see the role of environmental protection in the light of sports? Similarly to other aspects of life, it is necessary to make some changes in sports in order to ensure its sustainability. Although sports mean sustainable human activities, services connected to it (e.g. use of water, energy demand, tourism, transport, etc.) are unsustainable and need remarkable steps to make the environment greener.

The aim of this study is on the one hand to introduce the intersections of sports and environmental protection, on the other hand to present the sustainability provisions of NBA from among the American professional leagues and also to show the green aspirations of the American Airlines Arena and the Staples Centre, which are two environmentally conscious arenas.

In the course of presenting the provisions of the NBA and the arenas I applied comparative analysis based on secondary data source, and examined reports, audits and case studies found on the internet.

1. Introduction

The professional sports industry includes some of the world's most iconic, inspirational and influential organizations (Bácsné 2015). In a cultural shift of historic proportions, the sports industry is now using its influence to advance ecological stewardship. North America's professional leagues, teams and venues have collectively saved millions of dollars by shifting to more efficient, healthy and ecologically intelligent operations. At the same time, the sports greening movement has brought important environmental messages to millions of fans worldwide. Sport is a great unifier, transcending political, cultural, religious and socioeconomic barriers. It also wields a uniquely powerful influence, both cultural and economic (Becksky-Nagy et al. 2015), that provides much needed leadership in sustainable practices and, in so doing, promotes a non-political public commitment to environmental protection (NRDC 2012).

In this study I try to answer the following questions that this paper can articulate:

- 1). How can we interpret the linking between sport and environmental protection?
- 2). What kind of environmentally conscious activities do the NBA and some of the League's Center?

2. Materials and methods

In order to present the linking between sport and environment I relied on Hungarian and international special literatures (IOC, 2003; Tarradellas 2003; Dikácz, Ujj 2004; Schmied et al. 2007; NRDC 2012).

For the analysis of NBA's green efforts and the use of environmental management tools of arenas I applied a comparative analysis based on secondary databases. I compared the NBA's and arenas' environmentally conscious behaviour – e.g. use of renewable energy, reduce waste, cut energy, composting – with the help of data gained from their web sites, reports, case studies.

3. The linking between sport and environment

The practice of sport includes activities at different levels. It ranges from persons who occasionally engage in sports activities and physical education to elite athletes, from small clubs to International Federations, from local competitions to championships and large scale events such as the Olympic Games. The practice of sport implies, to a varying degree, a structured organization, sports facilities and equipment, logistics and sponsors, media, and athletes of course, i.e. persons who practice a sport more or less intensively.

Potentially, sport can generate various impacts on the ecosystems, from insignificant repercussions to major damage. The scale and gravity of impact depends mainly on the kind of sport and the size of the event. The following types of impact generated by sports events should be considered (IOC 2003, Dikácz, Ujj 2004):

- Short-term impacts occur during the event (e.g. F1 noise or air pollution).
- Long-term impacts continue to exist after the end of an event; they can be due to facilities or infrastructures that remain (e.g.: Soil deterioration – long-term pollution or soil packing – are also long-term impacts).
- Direct impacts are caused by facilities and people directly involved in the event. (e.g.: Olympic Game: people, transportation, catering, sport tourism, waste management).
- Indirect impacts are due to new infrastructures built for the event but not directly related to the sports activity (e.g. new roads, new bridges).

It is particularly difficult to describe with accuracy the environmental effects of sport at a general level, mainly because:

- Environmental issues can be very different for each kind of sport. Environmental resources are drawn on in different ways depending on the kind of sport being played;
- Potential impacts are not real impacts. Potential impacts can be reduced or even eliminated by choosing a sound place, adopting an environmentally sound management of events and transforming people's behaviour;

- The extent of an impact is often more relevant than its type. The size of an impact depends on: how intensively the sports place is used and how sensitive the natural setting is.

Literatures (IOC 2003, Tarradellas 2003, Dikácz, Ujj 2004, NRDC 2012) have identified below a series of environmental issues which may have to be addressed, when engaging in a sports activity or organizing a sports event:

- biodiversity conservation,
- protection of ecosystems,
- land use and landscape,
- pollution,
- resource and waste management,
- health and safety,
- nuisances (water, air, soil),
- safeguard of cultural heritage.

In addition to these, there are activities related to sport which also have effect on the environment: building, transportation, food and accommodation, sport tourism, office work, transportation.

Nowadays there are so many environmental management tools for leagues, clubs, managers, sporting goods manufacturers (Ráthonyi, Ráthonyi-Odor 2015) in order to take care for the mentioned environmental issues and make their activities greener.

Next, I would like to highlight these opportunities and activities by the NBA, the American Airlines Arena and the Staples Centre.

4. Results

4.1. The NBA's green efforts

The NBA began working with NRDC's sports greening project in 2007 to enhance the environmental profile of the league. NRDC (Natural Resources Defense Council) is a national nonprofit environmental organization with more than 1.3 million members and online activists. Since 1970, their lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment. NRDC has offices in New York City, Washington, D.C., Los Angeles, San Francisco, Chicago, Montana, and Beijing. NRDC and NBA launched the league's greening initiative by creating an environmental policy statement that established the league's goal to improve their environmental performance, and presented their sustainability initiative as an institutional priority (NRDC 2015).

During the launch of the NBA's green initiative, NRDC assisted the league with environmental assessments at their front offices and at the NBA Store in New York City. NRDC offered strategic advice to the NBA Store on improving their procurement and operational practices, including waste and paper reduction, better



paper procurement, environmentally friendly cleaning products and paints, an improved recycling program, and energy-efficiency improvements (NRDC 2011). At NRDC's suggestion, the NBA removed all plastic items containing the chemical BPA that might come in contact with children. This NBA initiative was four years before the U.S. FDA recommended removing BPA from plastics (NRDC 2012).

Soon after, the "NBA Green" program was formed under the NBA's philanthropic NBA Cares program, and NRDC created customized Greening Advisors that were distributed to all NBA teams. These web-based advisors provide a comprehensive toolkit for teams and arenas to green their operations.

NRDC began its NBA All-Star Game greening collaboration at the 2008 NBA All-Star Game in New Orleans by arranging for an energy audit of the New Orleans Arena and adjacent Louisiana Superdome and Convention Center. NRDC helped the NBA to improve the existing recycling program at the arena to include plastic bottles and aluminum cans, to procure 100 percent recycled content bathroom tissue at the arena, and to provide hybrid cars for staff transportation during the event.

NRDC assisted in greening NBA's EuropeLive tour in October 2008, which featured NBA games in four countries in Europe. The arenas being used in London and Berlin were a showcase for sustainability, as they already had in place many environmental features. In London, this included the diversion of 100 percent of food waste for composting and 100 percent of used cooking oil for biodiesel; advanced recycling programs for glass, plastic, paper, and cardboard, which diverted 60 percent of all waste from landfills; a rainwater catchment and recycling system and other water conservation measures; enhanced transportation options that enabled 75 percent of attendees to take mass transit; and energy-efficient lighting.

In an effort to highlight their growing environmental initiatives and engage fans, sponsors, partners, and players, the NBA held its first-ever NBA Green Week in April 2009 at all NBA arenas around the country. They created the NBA up to date Green website including NBA's Green mission, NRDC green tips for home and office, videos and news about teams', players', arenas' greening efforts, and information about earlier and the mature Green Week.

During the 2010 NBA Green Week, the NBA Store in New York City hosted a footwear drive to collect slightly worn athletic shoes for donation to Hoops 4 Hope, a global nonprofit organization teaching life skills through basketball to youth in southern Africa. Customers who brought in shoes received a 20 percent discount on purchases of new athletic shoes.

In early 2012, the NBA collaborated with NRDC to produce a public service announcement (PSA) about the league's greening initiative. This PSA was shown in all arenas and on broadcast TV, was viewed by more than 17 million people. The PSA showcased NBA's commitment to renewable energy, recycling, water



conservation, and reduced packaging. NBA plans to air this PSA each Green Week in the future, and possibly during its All-Star Game and playoffs (NRDC 2012).

Year by year the NBA engages in a number of environmental messaging initiatives. The league's official outfitter, Adidas, has provided All-Star players with shirts featuring the NBA Green logo and made from 50 percent recycled polyester. During nationally broadcast games throughout Green Week, players also wore NBA Green headbands, wristbands, and socks made from 45 percent organic cotton. NBA.com held an online auction of Spalding basketballs incorporating 40 percent recycled content and autographed by NBA players. The NBA Store and select team retailers also offered organic cotton NBA Green t-shirts, hats, socks, headbands, and wristbands for purchase, along with recycled-content Spalding basketballs. Each of the league's 30 teams hosts Green Week community service events such as tree plantings, recycling drives, and park clean-up days to encourage fans to get involved in the league's greening initiative. Teams have also hosted in-arena Go Green Awareness Nights, including promotions of "greener living" tips and auctions to support environmental protection organizations (NRDC 2015).

4.2. American Airlines Arena

The American Airlines Arena, Miami's top sports and entertainment venue and home of the three times NBA Champion Miami Heat, opened 1999. Its seating capacity is 19,600, and the construction cost was almost 300 million dollars.

The Arena was awarded LEED Certification for Existing Buildings: Operations & Maintenance by the U.S. Green Building Council (USGBC) in April 2009. The Arena was one of the first two arenas in the country to receive this prestigious designation by the USGBC (American Airlines Arena 2009, USGBC 2013). LEED is the USGBC's rating system for designing and constructing the world's greenest and most energy-efficient high performing buildings. Over the past 6 years the facility has maintained its steadfast commitment to environmentally sound principles and practices – so much so that the facility completely bypassed its initial LEED Silver goal and achieved LEED Gold, the first arena in the world to receive LEED Gold recertification (American Airlines Arena 2015, NBA 2015).

The Arena has used LEED for Existing Buildings rating system as a road map to achieve the coveted Gold recertification, a set of voluntary performance standards for the sustainable ongoing operation of buildings that includes a number of sustainable maintenance measures as well as energy efficiency and conservation practices. Next, I would like to interpret some of these features.

The exterior of the Arena is maintained without the use of chemicals, preventing the potential contamination of our water table and soil erosion (NRDC 2012).

Over 63% of the Arena's cleaning purchases – cleaning supplies, toilet paper, paper towels and soap – meet LEED's and other industry sustainability criteria.

The Arena is centrally located providing easy access to mass transit systems such as MetroBus, MetroMover, MetroRail and the Miami Trolley. Carpooling

and mass transit use to arena events resulted in 6694 alternative transportation trips during the 2013-14 Miami HEAT season.

The Arena is outfitted with efficient plumbing fixtures (toilets, urinals and faucets) resulting in a reduction of 16,7% water consumption. They managed to save 12,5 million litres water. In addition, 570 litres of water have been conserved due to the facility's efficient landscaping, which provides a reduction of 77,1% in irrigation due to drought resistant plants, drip irrigation and weather-sensitive meters (American Airlines Arena 2015). All irrigation of planters and landscaped areas is done by a drip system or a soak system that applies water directly to the roots, and all lines have low-flow nozzles. Also, timers are used so that irrigation takes place in the middle of the night in order to minimize evaporation (USGBC 2013).

During the 2013-14 season, 148.950 kg of waste was diverted from the landfill and 2250 kg of food were donated through the Re-HEAT Program where unused food from HEAT games and Arena events is donated to local homeless shelters.

The Heat reduced the heat island effect (i.e.: dark non-reflective surfaces absorb the sun's warmth and raises ambient temperature) and saved energy by using a more reflective "white" roofing and underground parking (NRDC 2012).

Over 85% of the Arena's on-going consumables – office supplies, toner, copy paper, calendars – meet LEED's sustainability criteria saving hundreds of trees, thousands of litres of water, hundreds of hours of electricity and preventing hundreds of kg of air pollution. In 2013, American Airlines Arena won the Office Depot Leadership in Green Purchasing Award, one of 30 organizations recognized by the office supply giant for sustainable purchasing habits.

As far as the Arena's energy consumption is concerned, compared to other public assembly facilities, the Arena uses 26,5% less energy per m2. In addition, more than half of all arena electrical equipment purchases meet EnergyStar and/or EPEAT standards. Over 54% of purchases for alterations to the Arena, such as floor tiles, ceiling materials, and carpeting contain recycled content.

American Airlines Arena is ensuring that 75% of its annual electricity use comes from renewable energy by purchasing RECs (Renewable Energy Certificates). RECs represent the renewable and environmental attributes of renewable energy and are one of the important sources of revenue that renewable energy generation projects take into account when developing new projects (American Airlines Arena 2015).

In 2015 the Miami HEAT has challenged Broward County Public Schools (BCPS) to find innovative ways to reduce energy consumption at each campus. Through the greening initiative titled "How Low Can You Go?" the team is enticing the schools to raise environmental awareness of CO2 emissions and educate the facilities about potential financial savings through responsible energy consumption (NBA 2015).

4.2. Staples Center

Staples Center (opened: 1999; seating capacity: 20,000; construction cost: 407 million dollars) in downtown Los Angeles is undoubtedly one of the busiest arenas in the world, hosting more than 250 events and nearly 4 million guests each year. The arena is home to four professional sports franchises – the NBA's Los Angeles Lakers and Los Angeles Clippers, the NHL's Los Angeles Kings and the WNBA's Los Angeles Sparks – and also hosts many high-profile events, including the annual X Games and Grammy Awards. Next, I would like to highlight some of the arena's environmentally friendly activities:

This is the first U.S. arena to achieve ISO 14001 certification for an environmental management system (EMS), a written program setting forth environmental goals and practices.

The venue uses AEG's – one of the leading sports and entertainment presenters in the world – Ecometrics system to measure and report environmental data and performance.

The Center implemented a variety of conservation measures through its EMS to reduce electricity consumption overall by 12%.

It installed a 1727 panel solar array covering 2250 m² of the arena's roof. The 360 kW system supplies 5 to 20% of the building's energy use (depending on load) and produces 525,000 kWh annually, saving an average of 55,000 dollars per year. This system is connected to an additional 166 kW system on top of the roof of Microsoft Theater. The combined systems will provide significant environmental benefits over the next 25 years. These include the elimination of over 10,000 tons of CO₂, more than 27 tons of SO₂ and over 33 tons of NO, one of the principal greenhouse gasses. The net clean energy benefits of the system equates to the environmental benefits of planting 688,000 m² of mature trees (Staples Center 2015).

In 2012 a comprehensive lighting retrofit replaced almost 3000 halogen fixtures throughout the facility with more energy-efficient LEDs, saving nearly 80,000 dollars per year, 2% of total energy costs (NRDC 2012).

All 178 conventional urinals were replaced with waterless urinals. The total annual savings is more than 26 million litres of water and about 28,000 dollars in direct water costs (NRDC 2012; Staples Center 2015).

The Center documents and achieves at least a 50% landfill diversion rate annually in full compliance with California AB 2176, collecting cardboard, wood pallets and electronic waste and, with the help of Levy Restaurants, collecting glass, plastic and aluminium beverage containers.

Over 60% of Staples Center cleaning products have green certifications.

100% of all toilet paper, paper towels and copy paper are a minimum of 30% post-consumer recycled content.

Electrical vehicle charging stations have been installed in adjacent parking lots and structures.



Public transportation is encouraged through partnerships with Los Angeles Kings, with ticket discounts offered to metro riders and other tenants and promoters.

Secure bike racks were installed on the venue property, and management is reviewing contracts for bike valet programs for major events.

In 2014, Staples Center broke new ground as the first NBA arena and the first NHL arena in the United States to install LED sports lights. Having installed LED lighting in other areas of the building, the arena monitored the development of performance-grade LED lighting technology and moved quickly once a product that met its strict standards came to market. The LED installation, which replaced standard metal halide lighting, is expected to save approximately 1.250.000 kilowatt-hours of electricity annually. This figure includes energy savings from the more efficient lights as well as the expected savings on cooling due to their reduced heat output (AEG 2015). Staples Center is looking towards the energy cost savings of approximately 280.000 dollars annually (Staples Center 2015).

The Arena tries to develop fans' environmentally conscious behaviour as well. In the web site we can read some tips to make our visit more environmentally friendly e.g.: use only as many disposable items (paper towels, napkins, utensils) as you need; help the Center increase their recycling rate by placing all waste and recyclables into designated receptacles.

5. Conclusion

Respecting environment means also respecting life and respecting himself. Famous athletes, clubs, team managers, world-wide sport equipment companies and media have special responsibility in influencing greatly new generations to respect environment.

Arenas, sporting clubs have true opportunities to influence in a positive way the environment: doing activities to clean their facilities and their playground, favouring group transportation when displacing to a competition, respecting natural ecosystems.

About the analysed league and the 2 arenas it was easy to find information about their green activities. In connection with the NBA, we can see that the league really does steps towards sustainability. Environmental features have also been incorporated not only into teams but into the NBA's offices and staff events. The NBA also educates their fans about environmental issues, in particular the need to recycle and to reduce energy and water use.

As far as American Airlines Arena and Staples Center are concerned, the Internet inform us detailed about their long term targets, activities related to them and the achieved results. Recycling, reduce waste, cut energy, minimize water use, public transport are those areas which are taken into consideration.



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