

**BASKETball Adaptation for aLL**  
**"BE GREEN IN SPORT GUIDE"**



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## Overview of Eco-Friendly Practices in Sports

In the modern era, the sports sector has progressively embraced sustainability and eco-conscious initiatives, acknowledging the significance of reducing its ecological footprint. With sports events and organizations drawing in millions of supporters and necessitating extensive infrastructure, travel, and resource consumption, the industry's environmental impact is substantial. In response, numerous sports teams, venues, and leagues have commenced incorporating environmentally friendly practices, establishing a model for the wider entertainment and corporate sectors.

### 1. Green Stadiums and Arenas

In the realm of sustainability, sports organizations are increasingly prioritizing the development and refurbishment of environmentally conscious stadiums and arenas. These facilities are meticulously planned to lower energy consumption, diminish water usage, and curtail waste, frequently obtaining prestigious certifications like LEED (Leadership in Energy and Environmental Design). Notable illustrations encompass:

**Mercedes-Benz Stadium (Atlanta, USA):** The home of the NFL's Atlanta Falcons and Major League Soccer's Atlanta United, Mercedes-Benz Stadium is a trailblazer as the first professional sports stadium in the world to achieve LEED Platinum certification. Powered by renewable energy sources, the stadium also collects rainwater for irrigation and boasts energy-efficient lighting and HVAC systems. Similarly, Tottenham Hotspur Stadium in London, UK, demonstrates a commitment to sustainability with its state-of-the-art design, efficient energy systems, waste reduction strategies, and rainwater harvesting techniques. These environmentally conscious stadiums prioritize energy efficiency, waste management, and water conservation to minimize their environmental impact during large-scale events.

Lincoln Financial Field



Mercedes-Benz Stadium in Atlanta





Tottenham Hotspur Stadium in London,

## 2. Renewable Energy Use

Sports venues and teams are increasingly turning to renewable energy sources, such as solar and wind power, to meet their energy needs. This not only reduces greenhouse gas emissions but also often results in cost savings over the long term. Examples of renewable energy initiatives include:

**Lincoln Financial Field (Philadelphia, USA):** Home of the NFL's Philadelphia Eagles, the stadium is powered by a combination of solar panels and wind turbines, making it one of the greenest venues in professional sports. **Amsterdam Arena (Netherlands):** The stadium is home to AFC Ajax and generates much of its power through 4,200 solar panels and a wind turbine. It also serves as a testing ground for innovative energy storage solutions, helping to stabilize the energy grid.

### Amsterdam Arena (Netherlands)



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### 3. Waste Reduction and Recycling Programs

Large-scale sporting events often result in substantial waste production, encompassing food packaging and promotional items. In response, numerous teams and venues have adopted extensive waste reduction and recycling initiatives, striving for zero-waste outcomes. Such endeavors encompass:

**Composting and Recycling Stations:** Numerous arenas, such as the Golden 1 Center in Sacramento (the home of the NBA's Sacramento Kings), have instituted composting initiatives to divert organic waste from landfills. Additionally, they have established recycling stations across their facilities, facilitating fan engagement in waste reduction endeavors. Single-use plastics are being phased out at sports venues, with a shift towards biodegradable or reusable alternatives. Wimbledon, the renowned tennis tournament, has also moved to eliminate single-use plastics by providing fans with reusable water bottles and installing water refill stations throughout the venue.

### 4. Sustainable Transportation Initiatives

One significant factor in the carbon footprint of sporting events is fan transportation. To tackle this issue, sports organizations are advocating for sustainable travel choices, urging fans to utilize public transit, carpooling, or cycling to games. Additionally, certain stadiums provide electric vehicle (EV) charging stations to encourage the adoption of environmentally friendly vehicles.

**Public Transportation Incentives:** Certain stadiums, for instance, MetLife Stadium in New Jersey, USA, have collaborated with public transportation systems to provide discounted or combined transit passes to attendees, lessening the necessity for individual car journeys to events. Additionally, bicycle parking is available at numerous stadiums, such as Levi's Stadium in California, USA, the residence of the San Francisco 49ers, in order to promote cycling to events and further diminish traffic and emissions.

Levi's Stadium (California, USA), home to the San Francisco 49ers



## 5. Water Conservation Efforts

Water consumption poses a significant challenge for sports facilities, particularly in areas experiencing water scarcity. Numerous stadiums and sports organizations have adopted water-saving innovations to minimize their usage and maximize the efficient utilization of resources.



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**Rainwater Harvesting:** Numerous stadiums worldwide, such as the Melbourne Cricket Ground in Australia, have implemented rainwater collection and reuse systems for purposes such as irrigation and non-potable water usage. The installation of low-flow fixtures, including toilets, faucets, and showers, further contributes to water conservation efforts without compromising the comfort and convenience of athletes and spectators.

## 6. Fan Engagement in Sustainability

A crucial component of sports organizations' environmental efforts lies in educating and involving fans in sustainability initiatives. Teams and leagues are progressively utilizing their influence to highlight environmental concerns and encourage sustainable actions among their supporters. This includes various initiatives such as:

**Sustainability Partnerships:** The Green Sports Alliance, a coalition of NFL teams, strives to involve fans in sustainability efforts by advocating for actions like recycling and energy conservation. In addition, some teams have introduced eco-friendly merchandise, such as clothing made from recycled materials, to foster sustainable practices among fans and support environmentally conscious purchasing decisions.

## 7. Green Certification Programs

In order to truly make a meaningful difference, numerous sports organizations strive for third-party certification of their sustainability initiatives. Certifications such as LEED for buildings or ISO for event management provide tangible benchmarks for sustainable efforts.

**LEED Certification:** Similar to the aforementioned, establishments like Mercedes-Benz Stadium have attained LEED Platinum certification due to their extensive sustainability initiatives. ISO 20121 Certification has also been pursued by significant events, like the London 2012 Olympics, to guarantee that the event's entire lifecycle reduces its environmental footprint.

## Conclusion

The movement towards eco-friendly practices in sports is gaining traction as teams, leagues, and venues recognize the significance of sustainability. Whether it's constructing environmentally conscious stadiums, incorporating renewable energy solutions, or implementing waste reduction programs, the sports industry is paving the way for other sectors. While there are obstacles to overcome, particularly in reducing the carbon footprint of travel and large-scale events, the current endeavors are establishing the foundation for a more sustainable future in sports. These green initiatives not only benefit the environment but also provide long-term cost savings and an opportunity to engage fans in meaningful ways, making sustainability a win-win for both the sports industry and the planet.

## Overview of Eco-Friendly Practices in Wheelchair Basketball

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As the global sports community becomes more aware of environmental sustainability, eco-friendly practices are increasingly being implemented in a wide range of sports, including adaptive sports such as wheelchair basketball. This sport, which offers a platform for athletes with disabilities, is embracing sustainability in a manner similar to mainstream sports. From greening venues to ensuring that the production of specialized equipment (such as wheelchairs) is environmentally conscious, wheelchair basketball is contributing to the larger effort to minimize the environmental footprint of sports.

#### 1. Sustainable Venue Design and Operations

The emphasis on eco-friendly practices in wheelchair basketball extends to the venues where games are played. Given that wheelchair basketball games are commonly held in multi-purpose sports facilities, there is a growing trend toward designing or renovating these venues with sustainability in mind, aligning with green building standards such as LEED (Leadership in Energy and Environmental Design).

**Energy Efficiency:** Sports arenas for wheelchair basketball are increasingly incorporating energy-efficient lighting systems, such as LED lighting, to minimize energy consumption and carbon footprints. Major venues hosting wheelchair basketball tournaments, like the Paralympic arenas, have embraced energy-saving technologies, including energy-efficient HVAC systems and solar panels, to reduce dependence on non-renewable energy sources. The integration of accessibility and sustainability in the design of these venues is a pivotal aspect. This includes the use of eco-friendly building materials, the implementation of energy-efficient designs, and the incorporation of water-saving technologies, all while ensuring full accessibility for athletes and spectators with disabilities.

#### 2. Eco-Friendly Wheelchair Manufacturing

The development of specialized sports wheelchairs, designed specifically for wheelchair basketball, presents an opportunity to advance sustainability. Manufacturers of these sports wheelchairs are now prioritizing eco-friendly methods, with a focus on sustainable materials and minimizing waste in the production process.

**Sustainable Materials:** Producers are exploring the use of environmentally friendly materials, like recycled aluminum or carbon fiber, which offer durability and lightness while also reducing environmental impact compared to traditional materials. Incorporating recycled or sustainably sourced materials into sports equipment manufacturing lowers the demand for raw materials and lessens the environmental footprint. Additionally, top-notch sports wheelchairs are engineered for longevity, decreasing the necessity for frequent replacements. Furthermore, businesses dedicated to adaptive sports equipment are prioritizing the reparability of wheelchairs, extending their lifespan and minimizing waste.



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### 3. Waste Reduction at Events

Basketball events featuring wheelchair athletes, particularly major tournaments like the Paralympic Games or national championships, are actively embracing eco-friendly measures in an effort to cut down on waste. Event organizers are showing a growing understanding of the significance of sustainability and are introducing various initiatives to lessen the environmental footprint of these gatherings.



**Recycling and Composting Programs:** Wheelchair basketball competitions are implementing recycling and composting stations at their venues to promote responsible waste disposal. This effort aims to divert materials like plastics, paper, and organic waste away from landfills. Certain tournaments even aim for zero-waste events by advocating for reusable materials and limiting the use of single-use plastics. In addition, event organizers are embracing digital technologies to minimize paper waste. Through electronic ticketing, online programs, and digital scorekeeping, the reliance on printed materials is greatly reduced, leading to a decrease in waste and carbon footprint.

### 4. Sustainable Transportation Initiatives

Transportation stands as a significant factor in the carbon footprint of sporting events. With numerous wheelchair basketball teams and supporters depending on accessible transportation, the push for sustainable travel solutions continues to grow.

**Public Transportation Access:** Wheelchair basketball tournaments at accessible venues with public transportation access are promoting eco-friendly transportation options. Some venues even offer accessible parking for electric vehicles and charging stations, further encouraging the use of sustainable transportation. Additionally, event organizers are

implementing accessible shuttle services and promoting carpooling to reduce the environmental impact and cut down on emissions during wheelchair basketball events.

## 5. Water Conservation Efforts

Similar to other sports facilities, wheelchair basketball venues are adopting water conservation measures to lessen their environmental footprint. Numerous arenas that host adaptive sports competitions are incorporating water-saving technologies.

**Low-Flow Fixtures:** Venues now incorporate low-flow toilets, faucets, and showers to minimize water usage without compromising accessibility for people with disabilities. These fixtures are tailored to conserve water while also accommodating individuals with disabilities. Additionally, some sports venues are integrating rainwater harvesting systems to capture rainwater for non-potable water systems and irrigation. This initiative not only diminishes the reliance on municipal water but also fosters venues' self-sufficiency in water consumption.

## 6. Promotion of Eco-Friendly Practices Among Fans and Athletes

Encouraging fans and athletes to embrace eco-friendly practices is a vital component of sustainability in wheelchair basketball. Key stakeholders and governing bodies within the sport, such as the International Wheelchair Basketball Federation (IWBF), are progressively amplifying the visibility of sustainability concerns and urging participants to embrace environmentally-conscious actions.

**Sustainability Awareness Campaigns:** During major tournaments and events, organizers frequently implement sustainability awareness initiatives to educate spectators, athletes, and teams about the significance of lessening their environmental footprint. These initiatives may encompass guidance on recycling, energy preservation, and sustainable modes of transportation. Additionally, certain wheelchair basketball events now feature eco-friendly merchandise, including apparel crafted from recycled or organic materials. This not only advances sustainability but also fosters mindfulness regarding the value of eco-conscious decisions among fans and participants.

## 7. Sustainable Event Certification

In an effort to align wheelchair basketball events with sustainability objectives, certain event planners are actively seeking green certification for their competitions. Standards like ISO 20121 (Sustainable Event Management) establish guidelines for executing environmentally conscious events, encompassing waste reduction and energy efficiency assurance.

**ISO 20121 Certification:** The utilization of ISO 20121 standards in events such as the Paralympic Games, where wheelchair basketball plays a pivotal role, demonstrates a commitment to integrating sustainability into the comprehensive planning and execution of

the games. This encompasses the establishment of sustainability targets, the efficient management of resources, and the mitigation of the event's environmental impact.

## 8. Case Studies of Eco-Friendly Initiatives in Wheelchair Basketball

This video analyzes real case studies of wheelchair basketball squads and teams that use or have used some kind of eco-friendly initiative. The impact of fans and players is evaluated through interviews. The following eco-friendly initiatives in basketball courts and events are analyzed through descriptive case studies. Some of these face the adaptation of the basketball courts and their use, while others face the implementation of measures during an event.

### Case Study 1:

Courts adapted for wheelchair basketball: mineral flooring, design and installation of motivational posters, and motivational phrases generated during a session. A side finish board is set up for fans to write and draw on, and a large center area is used for other sports. It is important to underline the availability for able-bodied people and people with reduced mobility to play. The city council and a local foundation are involved in the project.

### Case Study 2:

From the workshop, we explained that a local foundation created a fact sheet about the competition and held a press breakfast. In addition, during the tournament, a video about the initiatives adopted was projected before each game. The foundation adapts one court for children and people with disabilities to practice sports (it is adapted for wheelchairs). More than 60 children and 20 adults race around the court in different categories (kids, juniors, seniors). They receive a commemorative t-shirt and a healthy snack at the end of the race, and during the race, there are different activities with the fans.

## Conclusion

The incorporation of sustainable practices in wheelchair basketball signifies the sports world's dedication to environmental responsibility. From venue construction to equipment production, the sport is taking steps to lessen its ecological impact and showcase the compatibility of sustainability and inclusivity. Wheelchair basketball has emerged as a leader in adopting eco-friendly strategies, utilizing renewable energy and optimizing water usage. Efforts are also being made to reduce the carbon footprint of equipment production through alternative materials and sustainable manufacturing methods. Awareness campaigns and educational initiatives promote eco-friendly practices among players, coaches, and fans. By embracing sustainability, wheelchair basketball paves the way for other sports to follow suit and inspires individuals and organizations worldwide. The positive impact of sustainable wheelchair basketball extends beyond the field and serves as a catalyst for change and innovation on a global scale.



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