Sustainable Development and Environmental Protection at International Sporting Events

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Abstract
Target: Sustainable development is the synergy of economic, social, political and environmental goals to promote the welfare and comfort of today's generation, without compromising the ability to meet the needs of future generations. The purpose of this article is to examine the impact of international sporting events on environmental protection. Development is sustainable.

Method: The method of this research is a review study and translates different articles in the field of sporting events and sustainable development and searches for the keywords sustainable development, sporting events, and the environment.

Findings: The bigger the sporting events, the greater the pressure they put on the environment. Large events can cause serious damage to the environment and the weather, even with the use of preventive measures. In the Olympic Games, as the largest human and sporting event in the world, much emphasis has been placed on environmental protection and the design of green spaces; The Sydney Olympics in 2000 became known as the Green Olympics by following these principles. Also, by studying the activities carried out at the Olympic Games for the protection of the environment, one can realize the importance of the issue.

Conclusion: If the sports authorities, athletes and spectators understand and accept that the authorities' actions have a positive effect on the environmental conditions of the event, the damage caused by the sport to the environment will be reduced. Also, the very important role of sport and its symbols can be used to raise environmental awareness, improve the performances and daily activities of millions of people who are part of this industry.

Keywords: Sustainable Development, Sports event, Olympics, Sport Tourism, the environment

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1. Introduction
Exercise and physical education can have important functions in the direction of sustainable development; however, there are always obstacles and obstacles to achieving these functions.

A comprehensive view of the sectors involved in sustainable development can pave the way for operational strategies in various sectors to achieve this important issue, which has been emphasized by many important international organizations, including the United Nations (Schulnorkorf, 2012) (19).

The environment or the environment in which we live actually affects all our efforts and physical activities, so the effects of the environment on the human life cycle cannot be taken. We must therefore accept the fact that the environment plays a significant role in all interactions of the present age. Instead of using physical force and more activity, humans do their work with various machines. Our ancestors had to work hard and do physical activity to do many of their daily activities, and this led to physical health and their psyche helps. While the organs of the human body are built to increase their capabilities with more activity and work. Technology, and new lifestyles deprive...
people of mobility opportunities. In today's society, many people are engaged in sedentary occupations and professional restrictions and other occupations do not allow them to be physically active enough, causing stress and nervous and psychological worries. (7). Sustainable development has various dimensions and aspects, and one of its problems is its scope, which includes everything for each individual (Hartman and Kwan, 2011) (20). Human rights, social justice, poverty reduction, environmental revitalization, and the elimination of inequalities are among the most important keywords for sustainable development (Mayes and Jacobs, 2017) (21).

The world is like a system in which all its components are interconnected and every action in it will have a reaction. The relationship between man and the environment in the long run follows the laws of thermodynamics. According to the first law of thermodynamics, the sum of energy and matter in a closed system is always a constant value, and different activities neither produce nor destroy energy they change from one form to another. The law of thermodynamics states that some energy is always wasted in converting energies together. In other words, in terms of energy, we cannot take back everything we have given. The laws of thermodynamics show the need to protect the environment and teach us what to do and what not to do. The world we live in is a closed system, and every action in it affects the other part. For example, dumping industrial waste in the ocean, it affects the quality of life of people who live miles away from the coast; A recession in a country will have a negative impact on its neighbors and farthest countries; Lack of up-to-date car engines and excessive use of fossil fuels will cause global warming and cause a crisis for all its inhabitants; Our fathers' decision to plant a tree somewhere on earth will continue for generations and will affect the lives of our children. Environmental sustainability means preserving the land in the best way for the next generation and not reducing its natural resources (9).

Sustainable development is the synergy of economic, social, political and environmental goals to promote the welfare and comfort of today's generation, without compromising the ability to meet the needs of future generations. With this interpretation, it can be said that sustainable development includes the management system of human relations and natural ecosystems for the continuous use of resources for the well-being of all human generations (Zahedi, 2011) (1). In recent decades, sustainable development has been one of the most important issues in the world, which includes issues such as the dimensions of development, factors and obstacles to development, as well as national development (Rauf, 2009) (2). A comprehensive overview of the sectors involved in sustainable development can pave the way for operational solutions in different sectors to achieve this important issue, which has been emphasized by many important international organizations, including the United Nations (Schulnorkorf 2012) (3). Sustainable development has various dimensions and aspects, and one of its problems is the scope that includes everything for each individual (Hartman and Kwak 2011) (4). But in general, most studies and experts emphasize on sustainable development from an economic, social and environmental perspective (Jacobs, 2017) (5). In a variety of contexts, development can have a philosophical implication for humankind that refers to re-engineering for the well-being of individuals through social, political, economic, and environmental reforms (Mayes and Jacobs, 2017) (5). From an environmental point of view, the endangerment of the generation of living organisms, the destruction of forests and the pollution of air and water, the quantity or amount of energy are among the issues that have been emphasized. In this regard, it should be emphasized that a sustainable environmental system should support vital resources and prevent the improper use of non-renewable resources and functions that lead to environmental degradation (Zahedi, 2016) (6).

At present, the ultimate goal of environmental protection is to achieve sustainable development in the form of economic programs in line with the principles of environmental protection and to prevent the destruction and depletion of renewable and non-renewable resources. Therefore, in order to fundamentally solve the critical environmental problems, macro and infrastructural perspectives of development should be designed in accordance with environmental protection laws, and any future economic, social and cultural development policies and planning should be based on environmental protection, natural resources and wise use of these resources. With the attitude of creating a balance and proportion between environmental laws and sustainable development (Padash, 2011; 32) (10).

2. Method
In the present study, in order to investigate the impact of international sporting events on the preservation of life and sustainable development, a review of research on sporting events and sustainable development was used. The research method is a review study based on the researcher's experiences and asking questions of individuals. Specializes in sporting events and sustainable development in sports. Considering that the category of sustainable development has been on
the stock market during the last 10 years and is one of the new topics, so far little research has been done in the field of sporting events and sustainable development. It seeks to achieve results in the field of holding events and tourism development of sports events as well as how to increase revenue for the city hosting the event and examines sustainable development in the field of sports events. The researcher in this study by reviewing previous research and studying foreign research and numerous articles in the field of sporting events of sustainable development and comparing them with each other as well as asking and answering questions from experts in the field of holding events and sports event specialists and examining aspects of the various events of the event for the host city and the study of how to attract tourists in the sporting event have achieved desirable results for the development of tourism in the sporting event and has provided favorable solutions in attracting tourists and building the desired infrastructure for the host city.

3. Findings

Reviewing studies in this field, he believes that academics should analyze the management and specific organizational aspects of sustainable development projects through sport, including specific tactics, strategies and barriers to sports development that underlie many future sustainable development projects (Zahedi 2020) (17).

In the Olympic Games, as the largest human and sporting event in the world, much emphasis has been placed on environmental protection and the design of green spaces; The Sydney Olympics in 2000 became known as the Green Olympics by following these principles. Also, by studying the activities carried out at the Olympic Games for the protection of the environment, one can realize the importance of the issue. (Official Report of the Olympic Games, 2004) (11).
In 1994, after the end of the Lily hammer Winter Games in Norway, during which special attention was paid to environmental protection; The President of the International Olympic Committee signed a cooperation agreement with the United Nations Environment Program (UNEP). Accordingly, in 1995, the Sports and Environment Commission was formed in the International Olympic Committee. And the first world conference was held that year in Lausanne, Switzerland. The purpose of forming this commission is to implement measures to increase environmental awareness in sports communities and efforts to reduce the destructive effects of sports activities in the field of natural environments. Currently, the environment is the third pillar of Olympism after sports and culture. In 1997, at the same time with the formation of the Sports and Environment Commission in the National Olympic Committee (8).

Objectives of the Sports and Environment Commission (18):
- Consider environmental concepts in the development of general sports policies
- Protection of the environment and natural resources through environmental planning and management in the context of sports activities
- Increasing knowledge and promoting environmental culture and insights among athletes, sports managers, sports friends and other relevant people
- Promoting new habits in accordance with environmental standards among target groups and individuals
- Strengthen the role of major groups, especially women, youth and indigenous peoples in order to participate in the management of nature-friendly sports to create and maintain a healthy environment for sports activities

Activities of Iran Sports and Environment Commission:
- Signing of a cooperation agreement between the Environmental Protection Organization and the Physical Education Organization and the National Olympic Committee on 1379/2/26
- Participate in mountain clearing day
- Participate in Arbor Day
- Attend the Clean Air Day event
- Holding a day of solidarity with nature

History of environmental activities in the Olympic movement:
- 1972: At the Sapporo Winter Games in Japan, competitions are approved on condition that the environment be returned to normal after the Games and the surrounding nature is not harmed.
- 1972: At the Munich Olympics, a set of buildings is designed with the precondition that the complex will be used as a natural park by the people of Munich after the Games.
- 1992: During the Barcelona Olympics, athletes and officials of the International Olympic Committee, along with other members of the movement, sign a treaty called the "Earth Pact" under which they commit themselves to protecting the planet.
- 1993: Sydney is selected to host the 2000 Olympics, committed to following and developing important environmental guidelines.
- 1994 - Lille Hammer launches the Winter Olympics with a strong emphasis on environmental duties and responsibilities.
- 1995: This year, the cities nominated to host the 2002 Winter Olympics are the first cities to have their environmental plans evaluated. This year the International Olympic Committee jointly convened and held the first World Conference on Sport and the Environment. The first World Conference on Sport and the Environment was held in Lausanne, Switzerland.
- 1996: The International Olympic Committee forms the Sports and Environment Commission. The environment was also mentioned as the third pillar of the Olympic Charter.
- 1997: Holding the Second World Conference on Sports and Environment in Kuwait
- 1999: The Third World Conference on Sport and the Environment is held in Rio de Janeiro, Brazil, and the agenda of the 21 Olympic movements is approved.
- 2000: The Sydney Olympics set the standard for new world standards to integrate environmental issues with decision-making, construction and performance related to various sporting events.

Eco-friendly sports:
Eco-friendly sports (nature coexistence games)
were first held in 1997 in Paraná, a region between three countries: Brazil, Argentina and Paraguay. In 9 days, 809 athletes from 55 countries competed in various sports in natural environments. One of the most important goals of these games is to emphasize the preservation and respect for nature and the attention of athletes around the world to their responsibility to protect the environment. The various disciplines of these games include shooting, mountaineering, horseback riding, mountain biking, boating, and parachuting (8).

At the 1996 Swiss Gymnastics Competition in Bern, 106,000 cubic meters of waste was generated. Thousands of trees were cut down during the Winter Games in Nagano, Japan, to build the complex of buildings and sports facilities needed. In contrast, tens of thousands of trees have been planted around the complex by athletes and students for the past ten years. At the Nagano Winter Games, propane was used as fuel in the Olympic torch, which produced far less smoke and carbon monoxide than in previous cases using paraffin (22).

At the Nagano Winter Games, recycled iron was used to build the ski jump.

At the Sydney Olympics, trash bags were made from grain starch; These materials, along with food scraps and paper containers, are converted into fertilizer and used in landscaping and landscaping after the Olympics in parks and gardens.

During the 1996 Olympics, Atlanta was 30 to 50 percent cleaner than normal at that time of year, as many citizens, who always drove around the city in their own cars, were at the time of the Olympics. They used public transport.

Home Bush Bay, the site of the 2000 Sydney Olympics, was originally a slaughterhouse, a pit full of bricks and other construction materials and garbage, commercial waste and industrial waste.

Due to energy efficiency measures and the use of renewable energy sources such as solar panels, the Olympic Village of Athletes prevents the emission of 7,000 tons of greenhouse gases annually.

The uniforms of the volunteers at the Nagano Winter Games were all made from recycled plastic bottles.

More than 50 percent of the plastic bottles and aluminum cans used at the Atlanta Olympics were recycled. The Athens Environmental Foundation and the Organizing Committee of the 2004 Athens Olympic Games will clean up the coastal areas on World Environment Day (June 5).

The Athens Environmental Foundation has launched a project called the World Olive Tree Crown. Planting a field near the hotel. Since then, thousands of trees have been planted throughout Greece and more than 1,400 schools, universities and other venues in more than 110 countries participating in the Olympics. Along the route carrying the Olympic torch, trees are planted to create a green highway. (8).

The Athens Olympic champions are presented with a crown of olive leaves as a symbol of peace, environment and success.

Sports slogans
- The athlete is always happy and smiling
- Athletes are loyal friends
- The athlete helps others more
- The athlete is less likely to run away from work. Therefore, the athlete is more successful in his job environment
- The athlete lies less.
- An athlete is healthier than others
- The athlete enjoys nature more, uses more nature by breathing more oxygen
- Athlete does less harm to the environment.

Those who do not exercise are more likely to be sad. Hemorrhoids are a very dangerous disease. Early morning causes upset and anger in the family, work environment (23).

The bigger the sporting events, the greater the pressure they put on the environment. Large events can cause serious damage to the environment and the weather, even with preventive measures, for example:

- Voting for the preparation of games, the existence of buildings, highways, airplanes and sports venues is essential and the construction of these items is associated with air, land and water pollution.
- The gathering of a large number of people in the venue of the games, the excessive use of the transportation system, the high consumption of water and energy, the mass production of garbage, etc., put a lot of pressure on the environment.
- Collecting and modifying the system after games will have many positive and negative environmental effects.

Doing different activities requires the use of energy. Heating the halls, lighting sports venues, turning on the TV and other electrical appliances, etc., emits greenhouse gases, and the significant transportation of spectators, teams, officials, and the transportation of food and beverages to the halls also doubles the use of energy. (Shabani Moghadam, Yousefi and Ahmadi, 2015) (12).

To create cooperation between the stakeholders of a city or a region so that by participating in sports, its facilities can be included in local assets and as decision makers in their responsibilities to agree and cooperate in holding And achieve sustainable development strategies (Sydney 1990 Olympic Inspection Committee) (15).

4. Conclusion
A In the sporting event, sports tourism is one of
the fastest growing sectors of the tourism industry, and sporting tourism is one of the most prominent topics in the industry. Because holding sporting events is always a challenge for host country managers due to its various effects, in recent years its negative environmental effects have been more and more studied and scrutinized and has always been a hot topic in global environmental issues. Various thematic principles have described the signs of responsible environmental behavior among individuals. While many behavioral stimuli have been studied in tourism texts, especially ecotourism, nature tourism, and the like, few sports texts have examined behavioral stimuli. The focus of this study was to determine which of the many behavioral stimulus elements are more important in the tourism event tourism texts and where sport and tourism are integrated (13). In the sporting event, sports tourism is one of the fastest growing sectors of the tourism industry, and sporting tourism is one of the most prominent topics in the industry. Because holding sporting events is always a challenge for host country managers due to its various effects, in recent years its negative environmental effects have been more and more studied and scrutinized and has always been a hot topic in global environmental issues. Various thematic principles have described the signs of responsible environmental behavior among individuals. While many behavioral stimuli have been studied in tourism texts, especially ecotourism, nature tourism, and the like, few sports texts have examined behavioral stimuli. The focus of this study was to determine which of the many behavioral stimulus elements are more important in the tourism event tourism texts and where sport and tourism are integrated (13).

According to the research findings, strategies for promoting environmental culture can be divided into three groups: educational and research strategies, management and structural strategies, and managerial and national strategies. The ten strategies that have had the highest priorities are:

- Launching a field or academic orientation in postgraduate courses entitled Sports and Environment; (24)
- Directing student research and dissertations towards sports and the environment;
- Strengthen national determination to develop environmental culture through sport;
- Teaching the principles of close cooperation between the Ministry of Sports, the Environmental Protection Organization and the Ministry of Education; 5
- Increase the level of government facilities to assist sports organizations that serve the environment;
- Development of cooperation agreements between the Department of Environment and the Ministry of Sports and other sports organizations;
- Selection of appropriate slogans and symbols in national sporting events based on environmental principles;
- Expanding the scope of activities and information of the Sports and Environment Commission of the National Olympic Committee;
- Defining and formulating precise executive mechanisms in order to protect the environment in sports sector projects;
- Holding conferences and scientific meetings focusing on sports and the environment.

Although sport is not one of the biggest persecutors of the environment, it can cause a lot of damage, small and large, to the environment. Today, environmental crises have become a global problem and extensive efforts are being made by countries and international and regional forums to combat pollution and environmental degradation (24).

If the sports authorities, athletes and spectators understand and accept that their actions have a positive effect on the environmental conditions of the event, the damage caused by sports to the environment will be reduced. Also, the very important role of sport and its symbols can be used to raise environmental awareness, improve the performances and daily activities of millions of people who are part of this industry. Sport and the environment are closely linked and sport is cited as a tool to achieve the principles of sustainable development. Since the Olympic Charter for Reform and the Environment became the third pillar of the Olympic Charter after sport and culture, significant steps have been taken to protect the environment is done. Today, there is evidence of an increase in sustainable environmental activities related to sports complexes. Water consumption is saved, clean energy and solar energy are used, lawn water consumption is managed in many places through drip irrigation, pesticide consumption is decreasing, halls have a sustainable management certificate, friendly flooring the environment is used (24).

Today, environmental considerations and conservation commitments are important criteria for granting hosting privileges to cities volunteering for the Olympic Games. International and regional congresses on sports and the environment have been held, and the International Olympic Committee, national committees. The Olympics encourage countries to set up a commission on sports and the environment and to
promote sustainable development. Undoubtedly, awareness is required to take any action. Improving public knowledge of environmental issues through exercise is a constructive step towards minimizing environmental damage. Sports tourism is a growing industry that, as an influential factor in economic and social reconstruction and sustainable development, promotes the host city and the development of urban and rural areas in developing countries as quickly as possible. Tourism is a major component of sports. Tourism has attracted a lot of attention in many countries recently and has a huge share as a "domestic market". Efforts to develop and promote sports tourism facilities and services in the city Hosting and efforts to increase security, recreational facilities, transportation, health and nutrition, and improving and developing the quality and quantity of residential centers, including hotels, subways for the use of tourists, as well as the optimal use of tourist attractions in sports events. In order to increase the number of visitors and tourists and try to improve the quality of facilities and equipment and increase their number at the regional and international level to meet the needs of sports tourists, planning and implementation of various programs and coherent sporting events in Provincial, national and international level with appropriate timing and location to attract more sports tourists, Marketing activities to inform and attract sports tourists to the city hosting the sporting event, as well as the design and development of an information management system for the development of sports tourism in related recreational areas have increased. If this trend is gradually replaced by the emergence of associations and volunteers of private manufacturers, it will change the hosting trend, in such circumstances the facilities for construction will be cheaper and will also be maintained after the event. Can be used by local residents (16).

5. Discussion

According to the results, spectators are responsibly sensitive to any perceived costs in performing environmental behavior, and if cooperation with the environmental management system does not take too much of their time, does not prevent them from watching the match and does not interfere with their enjoyment in general, automatically They go along with it. The results also indicated the need for efficient equipment design to ensure ease of use and, consequently, to reduce perceived costs associated with responsible environmental behavior (14).

As a result, vegetation degradation and physical damage to plants and other aforementioned effects are affected by the type of use in the region. The potential for vegetation degradation depends on different environmental conditions of the region. Plant type and morphological and physiological characteristics of the plant. Changing water quality is one of the important effects of tourism project activities in the preparation, implementation and operation stages. Water quality is used in two aspects of water sports and drinking water in tourism projects and in this regard, in relation to other effects, it is directly and more clearly related to human health.

The increase of suspended solids and water pollution are among the observable factors that increase significantly due to the activities of tourism projects. Increasing the suspended solids reduces the transparency of the water and also reduces the depth of light penetration into the water. Tourism uses and related activities increase the inflow of nutrients such as nitrogen and phosphorus (due to erosion of the region as well as increasing the inflow of sewage and altering the drainage network) of the region. Destroying vegetation increases runoff and leaching in the area and this factor indirectly increases water nutrients and also changes the chemical properties of water. Due to the above changes, the growth of aquatic plants in lakes and rivers has increased significantly and as a result, the amount of available oxygen and the composition of species of aquatic organisms change. Another effect of tourism activities, especially in the operation phase, is the effect on water health quality.

Assessing Natural Resources for Ecotourism: A Case in the Central Coast of Australia Natural resources have been identified for the development of nature tourism and assessed in the central coastal region of West Australia by Julianna Priskin (2001). Evaluation is used for both quantitative and qualitative techniques. Information is collected using a checklist method to determine the characteristics of places. Ecotourism has been identified. Attraction diversity in the highlands, poor accessibility is low, and environmental degradation is moderate. (25)

Environmental degradation:
Using 10 indicators, the level of environmental degradation is assessed.
1- Garbage (quantity, type and density)
2- Weed (amount of invasion by non-native species)
3- Disease (existence of diseases that affect the ecosystem such as dieback)
4- Fire effect (caused by abnormal events such as camping, ad-hoc burnings)
5- Burnout (roads, river canals)
6- Kicking the plant (on the composition of the plant in terms of physical structure)
7- Destruction of sand dunes (these hills are unstable)
8- Erosion of the earth’s surface
As a result, the National Olympic Committees encourage countries to create commission sports and the environment and to promote sustainable development. Undoubtedly, awareness is required to take any action. Upgrading public knowledge of environmental issues through exercise is a constructive step towards minimizing environmental damage.

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