

# Research on the Development Characteristics of Ice and Snow Industry from the Perspective of Winter Olympic Heritage

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**Abstract:** China successfully hosted the 2022 Beijing Winter Olympic Games, which left a large number of tangible and intangible Winter Olympic heritage for China. Under the background of 300 million people participating in ice and snow, how to play the role of Winter Olympic heritage and promote the development of ice and snow industry is an important issue to be solved. This study analyzes the basic characteristics of the heritage of the 2022 Beijing Winter Olympic Games and the winter Paralympic Games from the five perspectives of positivity, sustainability, inheritance, diversity and localization, and the unique green Olympics, mass Olympics and driving Olympics of the heritage of the Beijing Winter Olympic Games. With the rapid development of China's ice and snow industry and the high participation rate of people in ice and snow sports, China has a good industrial development prospect. From the perspective of Winter Olympic heritage, China's ice and snow industry has relatively perfect policy support for the development of ice and snow industry, and can inherit the tangible and intangible heritage of the Olympic Games to give full play to the maximum effect of the ice and snow industry.

**Keywords:** Winter Olympic Heritage; Ice and Snow Industry; Beijing

## 1. Introduction

The term "legacy" first appeared in the Olympic Games in the bidding documents for the 1956 Olympic Games in Melbourne, Australia. However, in the next decade or so, the concept of "Olympic heritage" did not attract people's attention. The main reason was that the scale of the early Olympic Games was relatively small, the funds invested were small, and the impact on economic and social development and other aspects also smaller [1]. Time developed to the Los Angeles Olympic Games in 1984. With the successful hosting of the Los Angeles Olympic Games, people officially began to realize that the operation of a successful Olympic Games can benefit the economy and society in many ways. In subsequent Olympic bid reports, the word "heritage" appeared more or less, gradually referring to tangible heritage such as venues and some intangible heritage brought to the development of sports tourism and sports. Even in the subsequent Olympic bid documents, the quality of the content of the Olympic legacy has become an important indicator to measure the success of the city's bid. In 1996, on the 100th anniversary of the modern Olympics, Atlanta proposed that a positive material and spiritual legacy would be preserved. The concept of "Olympic heritage" really entered the public's field of vision. In 2002, the International Olympic Committee held an international seminar on heritage in Lausanne, Switzerland, and invited a number of sports organizations to discuss the issue of Olympic heritage. In July 2003 The Olympic Research Committee of the International Olympic Committee released a report on the Olympic heritage, pointing out that the Olympic heritage is a valuable resource, and we should pay attention to the various precious heritage left by the Olympic Games, including various tangible and intangible assets for the host city, country and residents, including venues, infrastructure equipment, event experience, professional knowledge etc. In that month, the International Olympic Games wrote the Olympic legacy into the Olympic Charter [2]. So far, the International Olympic Committee requires that each Olympic bid city must answer its understanding of the concept of Olympic heritage when bidding for the Olympic Games.

## 2. The Concept of Olympic Legacy

The International Olympic Committee has released the Heritage Strategic Approach [3], which provides an operational definition of the Olympic heritage. The so-called Olympic heritage is the result of the Olympic vision. The Olympic legacy refers to the benefits that hosting the Winter Olympics, Summer Olympics, Paralympics, Youth Olympics and other Olympic Games or Olympic events brings to the host city, region and country. This benefit includes both long-term and short-term benefits. The Olympic legacy comes from the implementation and implementation of a specific vision of the host country to host the Olympic Games [4]. So what is the vision for the Olympics? The Olympic Charter, the general constitution of the Olympic Movement, contains such a paragraph: The goal of Olympism is to place sports in a position to serve the harmonious development of mankind and to build a peaceful, stable and dignified society. With this goal in mind, the Olympic Movement's vision is to create and build a better world through sport. Therefore, it contains a meaning of creating long-term benefits for residents and cities [4]. Such goals and visions are rooted in some of the genes of the modern Olympic Games. We can see that the previous Olympic Games have left some tangible and intangible benefits, especially as the importance of the Olympic Games continues to increase. More and more take responsibility for creating more benefits for the society.

### 2.1 Basic Features of the Olympic Legacy

Chinese scholar Sun Baoli[5] and others summed up the basic characteristics of the Olympic heritage by analyzing the text content and keywords of the International Olympic Committee related to heritage. The basic characteristics of the Olympic heritage include: positiveness, sustainability, inheritance, diversity and Indigenous. And pointed out that if the Olympic heritage does not have the above five functional attributes, then its heritage benefits will be greatly reduced.

### 2.2 Basic Features of the Legacy of the 2022 Beijing Winter Olympics and Paralympics

The Olympic Agenda 2020 is an agenda for the development and reform of the Olympic Games adopted by the International Olympic Committee in December 2014. The Olympic Agenda 2020 clarifies the hosting and development of the Olympic Games from the aspects of further reducing the cost of bidding and running the Olympic Games, further promoting the sustainable development of the Olympic Games, improving the credibility of the Olympic Games, and paying attention to the humanistic care in the Olympic Games. The Beijing 2022 Winter Olympics and Winter Paralympics were successfully bid in 2015, but the "Olympic 2020 Agenda" was promulgated in December 2014, which means that the Beijing 2022 Winter Olympics and Winter Paralympics are the "Olympic 2020 Agenda" After the promulgation, the Beijing 2022 Winter Olympics and the Winter Paralympics have comprehensively considered and planned the Olympic legacy from the bid to host the Olympic Games required by the Olympic 2020 Agenda. Therefore, the 2022 Beijing Winter Olympics and Winter Paralympics will fully reflect the basic characteristics of the Olympic heritage.

(1) Positive characteristics: The main task of the legacy work of the Beijing 2022 Winter Olympics and Winter Paralympics is to make efforts in 35 fields in seven aspects: sports, economy, society, culture, environmental urban and regional development. Thirty-five fields set out to create and excavate the rich legacy of the Beijing 2022 Winter Olympics and Paralympics. The Beijing 2022 Winter Olympics and Winter Paralympic Games have fully completed the overall planning and management of the Olympic heritage at the beginning of the preparations. The Beijing 2022 Winter Olympics and Winter Paralympic Games will definitely leave a valuable legacy for the host city and region heritage.

(2) Sustainability characteristics: Sustainability is getting more and more attention nowadays. At the same time, the Beijing 2022 Winter Olympics and Winter Paralympics will create a new model for the sustainable development of the Olympic Games and the region as its own goal. It can be seen that at the beginning of the preparation of the Winter Olympics heritage, the focus has been on the sustainable benefits and sustainable development brought by the Olympic heritage decades or even hundreds of years later [5]. The Organizing Committee of the Beijing 2022 Winter Olympics and Paralympics has promulgated the "Beijing Winter Olympics and Paralympic Winter Games Sustainability and Heritage" handbook, which has repeatedly emphasized the importance of sustainable development from various aspects.

(3) Inheritance characteristics: The Beijing 2022 Winter Olympics and Winter Paralympics fully

reflect the inheritance characteristics, and Beijing is the only "Double Olympic City" in the world. Many venues of the Summer Olympics were simply transformed into the Winter Olympics, which not only fully met the needs of the Winter Olympics, but also saved a lot of money [6].

(4) Diversity characteristics: Creating a rich Winter Olympics heritage and allowing the Winter Olympics heritage to bring influential benefits to the host and host city residents is an important part of the preparations for the Beijing 2022 Winter Olympics and Winter Paralympics. The legacy of the Beijing 2022 Winter Olympics and Paralympics has various forms, involving 35 fields in 7 aspects, and the achievements in many fields have been transformed into the actual Winter Olympic legacy, including the Beijing 2022 Winter Olympics and the Winter Paralympic Games. The Olympic Games have produced specific heritage achievements in promoting the integration of ice and snow sports into national fitness, the rapid development of the ice and snow industry, and the popularization and promotion of ice and snow culture, and benefited the majority of Chinese residents in advance [7].

(5) Local characteristics. The Beijing 2022 Winter Olympics and Winter Paralympics will closely integrate the preparations for the Winter Olympics with the city's development goals and the people's needs for a better life, incorporating a large number of traditional Chinese elements and Chinese characteristics [8], which fully reflects the Olympic Game indigenous function of heritage.

### ***2.3 Unique Features of the Beijing Winter Olympics Legacy***

#### ***2.3.1 Green Olympics***

The Winter Olympics has its own unique characteristics compared with the Olympic Games because the competition items are all carried out around the ice and snow environment. Compared with the Summer Olympics, which are more dependent on urban man-made landscapes, the environment of the Winter Olympics is more original. In addition, the new concept of the Winter Olympics proposed by the Beijing 2022 Winter Olympics and Winter Paralympics puts green Olympics in the first place. The Beijing 2022 Winter Olympics and Winter Paralympic Games emphasizes adhering to the priority of ecology, emphasizes the importance of resource conservation and environmental protection, clears the value and significance of ecological sustainable development, and makes it clear that the Beijing 2022 Winter Olympics and Winter Paralympic Games must focus on green development and sustainable development. During the preparations for the Beijing Winter Olympics, environmental governance in the Beijing-Zhangjiakou area was vigorously promoted. At the same time, the environmental governance was also driven by poverty alleviation work, and ecological poverty alleviation was actively explored. The poor population was encouraged to actively participate in the work of ecological forest rangers. Poverty alleviation and stability drive the masses to increase their income and get rid of poverty [9].

#### ***2.3.2 Mass Olympics***

The snow sports of the Winter Olympics also played a great role in promoting the popularization of ice and snow sports among the masses. First of all, the wonderful performances of the athletes in the Winter Olympics greatly demonstrated the beauty of ice and snow sports and attracted the masses to participate in ice and snow sports. The venues for the Winter Olympics were built with consideration for the development of mass sports and national fitness sports in the future. For example, the National Snowmobile Sled Center was prepared for non-professionals when the track was designed, and special public experience was reserved. At the starting point, the general public can also experience the snowmobile sled project here after the game [10]. On the premise of ensuring the normal progress of the event, a number of venues have created ancillary ice and snow leisure and entertainment spaces, and built ice and snow sports venues with dual attributes that can not only undertake large-scale ice and snow events, but also provide public ice and snow leisure.

#### ***2.3.3 Industrial Olympics***

With the popularization of mass ice and snow sports, the masses' demand for ice and snow sports equipment continues to increase, and the ice and snow equipment industry has been greatly developed. For example, Zhangjiakou City has vigorously developed the ice and snow equipment manufacturing industry by taking advantage of the dividends of the Winter Olympics and the Winter Paralympics. As of February 2022, Zhangjiakou City has two large-scale ice and snow industrial parks, namely the High-tech Zone Ice and Snow Sports Equipment Industrial Park and the Xuanhua District Ice and Snow Industrial Park [11]. Through a variety of ways, such as introducing preferential policies and measures related to the ice and snow industry, jointly building and sharing a database of investment

promotion information, and participating in ice and snow related exhibitions and expos, the ice and snow industry has been promoted by leaps and bounds.

### **3. Development Status of Domestic Ice and Snow Industry**

The ice and snow industry is a form of business based on ice and snow resources. It can generate economic benefits through the development of ice and snow resources. The ice and snow industry has the characteristics of wide coverage and long industrial chain, and is a special type of industry [12]. As far as my country's situation is concerned, the ice and snow industry is roughly divided into three categories, including the construction of ice and snow venues (such as ski resort construction), the ice and snow service industry (such as ice and snow venue operation, ice and snow event services, public ice and snow sports and training, and ice and snow tourism and skiing project guidance) and ice and snow supplies and related product manufacturing (such as ice and snow sports equipment manufacturing, etc.). The Winter Olympics have promoted the possibility of 300 million people participating in ice and snow, and the market size of my country's ice and snow industry in 2021 will be 578.8 billion yuan, with an annual growth rate of up to 50%.

Since Beijing's successful bid to host the Winter Olympics in 2015, as of October 2021, the number of participants in ice and snow sports across the country has reached 346 million. Due to differences in natural conditions, the proportion of residents participating in ice and snow sports in different regions of my country is different. The eastern region has the largest number of people participating in ice and snow sports, followed by the western region, and the northeast region has the least number of people participating in ice and snow sports. The temperature is lower, and the residents in the Northeast have the highest participation rate in ice and snow sports. In the survey, it was found that the participation rate of ice and snow sports in 12 provinces, autonomous regions and municipalities in my country exceeded 30% and 30%. Among them, the participation rate of ice and snow sports of Heilongjiang residents was 57.8%, ranking first in the country. It can be clearly seen that the development of ice and snow sports in my country is strongly influenced by climate and economic conditions [13]. It reflects that the development of ice and snow sports is subject to both climatic and economic conditions. There are also differences in the probability of residents of different ages participating in ice and snow sports. The number of adult residents in my country participating in ice and snow sports is 300 million, with a participation rate of 26.95%; the number of residents under the age of 18 participating in ice and snow sports is less than 500 million, with a participation rate of 15.62 %, which is 11.33% lower than the participation rate of adults in ice and snow sports. Because adults are more independent in behavior, the participation rate of adults in ice and snow sports is much higher than that of minors, but it also reflects that there is enough space for the development of ice and snow sports among minors. With the support of the state and the joint promotion of education, sports and other departments, my country has launched plans or plans to promote youth participation in ice and snow sports such as "Millions of Teenagers Going to Ice and Snow" and "School Ice and Snow Program", and incorporate ice and snow sports into school sports. The education curriculum system promotes ice and snow sports into the campus from many aspects.

Sports tourism is also developing. Although affected by the new crown epidemic, the total consumption of ice and snow tourism in my country in 2020 is not high, and the number of consumers is also decreasing. However, with the normalization of the epidemic, Chinese residents' enthusiasm for ice and snow tourism has not decreased. From 2020 to 2021, the number of ice and snow tourists in China will exceed 200 million, and the revenue of ice and snow tourism will be nearly 400 billion yuan. It is expected that in the post-Winter Olympics era, my country's ice and snow tourism market will be driven by the Northeast, Xinjiang and Beijing-Tianjin-Hebei regions to achieve full bloom.

### **4. Development Characteristics of the Ice and Snow Industry after the Winter Olympics**

With the implementation of ice and snow sports, the number of ice and snow events has increased year by year, and the specifications of the events have been continuously improved, especially the successful holding of the Beijing Winter Olympics. General Secretary Xi Jinping made an important speech on the development of the ice and snow industry, and strictly implemented the new development concept of "innovation, coordination, green and openness". The development of ice and snow sports is related to the important strategic goal of a sports power and a healthy China. The ice and snow industry is an important and vital part of the sports industry. The development of the ice and snow industry has far-reaching significance for improving my country's industrial economy and

satisfying people's sense of happiness.

#### ***4.1 Supported By a Relatively Complete Ice and Snow Industry Development Policy***

In 2019, the Ministry of Industry and Information Technology, the Ministry of Education, the Ministry of Science and Technology and other departments jointly issued the "Ice and Snow Equipment Industry Development Action Plan (2019-2022)" in conjunction with the Beijing Winter Olympics Organizing Committee. Many provinces and cities have issued development plans for the ice and snow industry. For example, the Jilin Provincial Committee of the Communist Party of China and the Jilin Provincial People's Government issued the "High-quality Development Plan for the Ice and Snow Industry (2021-2035)" in October 2021. The high-quality development system of the ice and snow industry in Jilin Province will be constructed in four aspects: positioning", "based on reality, highlighting Jilin's characteristics", "innovative development, building an industry-driven chain", "strengthening guarantees and ensuring effective implementation". In addition, in order to help the vigorous development of ice and snow sports, the State Administration for Market Regulation, together with the General Administration of Sports and Heilongjiang Province, have promulgated 11 ice and snow sports related to skiing, ski resorts, ice hockey, speed skating, alpine skiing, curling and other sports in 2022. The national sports standard plan project plans the basic terms of skiing and speed skating, the star rating of ski resorts, the level evaluation specifications of popular curling, ice hockey, alpine skiing, skiing events, etc.

#### ***4.2 Inherit the Tangible and Intangible Heritage of the Olympic Games and Develop the Ice and Snow Industry***

The holding of the Beijing Winter Olympics is a continuation of our country's understanding of the Olympic spirit as the Chinese nation, and an important journey to promote Chinese traditional culture and modern civilization to the world. Beijing has become the world's first "Double Olympic City"; at the same time, China has also become the world's first "Grand Slam" of Olympic events (hosting the Olympic Games, Paralympic Games, Youth Olympic Games, Winter Olympic Games, Winter Paralympic Games successively) Olympics) countries. These Olympic heritages will leave tangible heritage such as venues and intangible heritage such as Olympic culture for my country, and will promote the development of culture, international exchanges and economy. These tangible and intangible heritages can be beneficial to drive the development of the ice and snow industry and form an ice and snow industry cluster. On the other hand, the tangible and intangible heritage of the Olympic Games has effectively promoted the construction of China's ice and snow tourism service system, and further stimulated the enthusiasm of Chinese residents to participate in ice and snow sports and carry out ice and snow consumption.

### **5. Conclusion**

As the first Olympic Games in the world to start planning for the Olympic legacy at the very beginning of the Winter Olympics, the Beijing Winter Olympics has left a precious and rich Winter Olympics legacy for both Beijing and China. And Beijing is the first city of "Double Olympics", giving full play to the spirit of the Olympic heritage, and changing the venues of the Beijing 2008 Summer Olympics into the venues of the Beijing 2022 Winter Olympics. This not only saves the expenses of organizing the Olympic Games, but also adds Chinese wisdom to the Olympic movement, and provides valuable experience in hosting the Olympic Games in the future. At the same time, the Winter Olympics not only promotes the development of comprehensive fitness programs, but also drives the development of the domestic ice and snow industry. The demand for consumer goods related to the ice and snow industry has surged, coupled with the support of policies related to the ice and snow industry. The domestic ice and snow industry has achieved rapid and high-quality development. The development of the ice and snow industry will inevitably make it more convenient for ordinary people to participate in ice and snow sports, thereby further promoting the people to participate in ice and snow sports, and the people's participation in ice and snow sports will drive the development of the ice and snow industry. Under such a virtuous circle, my country's ice and snow industry is bound to flourish.

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