Research Status and Future Development Direction of Chinese Sports and Geographical Environment

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Abstract. The formation and development of sports events originate from a specific geographical environment. At present, the research on sports and geographical environment in China is relatively weak compared with foreign countries, and the breadth and depth of research are also a certain gap. The related research of the environment is integrated, and the research in this field is mainly concentrated on the following aspects: 1. The impact of the geographical environment on sports, including the relationship between the generation of sports events and the geographical environment, and the geographical environment on the performance of sports competitions impact, climatic conditions on sports, etc.; 2. The impact of geographic environment on sports participants includes the training methods, methods and physiological functions of athlete groups, and the effects of physical exercisers' physical behavior and physical health; 3. The relationship between sports and environmental protection and other aspects. At the same time, it also made a rough prediction on the future research directions in the field of sports and geographical environment, in order to be able to contribute to the research in this field.

1. Introduction
At present, sports have become an important social behavior of human beings. The generation and development of sports are closely related to the natural environment. The material materials required in the development of sports are obtained directly or indirectly from the natural environment. The natural environment provides sports operations. And the development of places, materials, and affect and restrict the operation and development of sports. Different countries or regions have different natural environments, but the pursuit of sports and the use of the natural environment are the same [1]. With the advancement of science and technology, the improvement of living standards and the development of people's awareness, more and more researchers recognize the importance of the relationship between sports and the environment. Therefore, it is necessary to organize and clarify the current research on sports and geographical environment In order to lay a solid foundation for future research on sports and geographical environment.

2. Sports and geographical environment
Since the 1960s, the study of the integration of sports and geography has emerged. The economic attributes and geographical environment, cultural attributes and geographical environment of sports, and the impact of the natural environment on sports performance have attracted the attention of some foreign
researchers. With the deepening of research, the relationship between sports and geographical environment has been paid more and more attention. At present, domestic scholars still have a certain gap in the study of sports and geographical environment compared with foreign scholars. The content of domestic scholars’ research is mainly in the following aspects:

Table 1. Relationship of Sports and Geographical environment

| Geographical environment factors | Sports factor | Relationship | Examples |
|---------------------------------|--------------|--------------|----------|
| Geographical environment        | Sports event | Estricting the emergence of sports events | Sailing |
| Altitude                        | Sports performance | Influence sports performance | The results of men's long jump and men's 100m race in the 19th Mexico Olympic Games |
| Climatic conditions             | Human function | Affect the physical function of athletes | The influence of the temperature and humidity of the host place on Athletes' physical function |
| Geographical environment and sports population | General exercise crowd | Affect the behavior, attitude of exercise and physical health | Air pollution |

2.1. The impact of geographical environment on sports

Geographical environment has a direct impact on the production of sports events. The appearance of early sports events is usually closely related to the natural environment. For example, the emergence of early swimming sports must rely on natural waters, and the early ice and snow sports also appear in cold areas with low temperatures. For example, nautical and sailing sports must rely on the marine environment. If you carry out nautical sports on the vast land, it is simply a fantasy. Based on this, some scholars pointed out that to some extent, the geographical environment strictly restricts certain sports. Generation and layout.

2.2. Geographical environment affects sports competition results

Geographical environment affects the performance of sports competitions. It is also one of the earliest problems researchers have noticed. For example, in the 19th Olympic Games held in Mexico in 1968, the altitude of the host site was 2248 meters. The plateau area has thin air, low air resistance, and gravity. It is also relatively small. Therefore, the geographical environment of Mexico City is particularly conducive to the improvement of jumping, throwing and sprint performance, but it poses a huge challenge for many athletes participating in endurance events. The facts fully illustrate this point. Several world records made a splash in the world: Jim Haines set a world record for men’s 100-meter run of 9.95, becoming the first male player to break the 10-second mark in the official game; the 43" 86 400-meter world record created by Lee Evans maintained for 20 years; Robert Beamon’s 8.90-meter men’s long jump record surpassed the previous world record of 55 cm. These examples fully illustrate the impact of the geographical environment on the performance of sports competitions, and also have a direct impact on the improvement of subsequent training methods and methods.

2.3. Impact of climatic conditions on sports

The climatic factors in the environment also have an important influence on sports. Especially the influence of air temperature, dry air humidity, etc. on sports people and sports competitions is also a hot issue in current research. According to the characteristics of human physiology, the temperature of the human body must be kept relatively constant for normal functional activities. Humans can only tolerate changes in the deep temperature of the body about 4°C, within this range will not affect the normal work of physical strength and intelligence, and beyond this range will have a negative impact on human function. Thermal environment it has a profound impact on the circulatory
function, body temperature regulation function and metabolism of the human body. When exercising in a hot environment, the heat dissipation capacity is limited due to increased heat production and the body temperature is more likely to rise. Excessive body temperature not only affects exercise ability, but is severe Thermal diseases can occur, or even die from heat. Therefore, when holding a sports competition, it is necessary to consider the natural conditions such as the temperature and humidity of the place where the competition is hosted, and the athletes simulate the competition place for a considerable period of time before participating in the competition. Necessary adaptive training in the environment.

3. The influence of geographical environment on sports population

The sports population refers to a social group composed of individuals who live at a specific time and in a certain area, aim to improve physical and mental health or improve athletic performance, and use physical activity as a common symbol [2]. This concept is based on direct participation in sports the people are divided into groups, which are also directly affected by geographical environmental factors during sports. Therefore, this article divides the sports population into two categories: one is the sports population whose goal is to improve sports performance, and the typical representative of this group of people it is the athlete group; the other category is the sports population whose main goal is to improve physical and mental health, referred to as the physical exercise population. At present, domestic papers on the geographical environment and the impact of the sports population are mainly concentrated in these two categories.

3.1. The impact of geographical environment on the athletes

The most direct pursuit of athletes participating in sports is the improvement of sports performance. This type of research is mainly divided into two categories: one is the study of the geographical environment on the changes of various physiological functions of athletes, for example, the geographical environment can promote a series of physiological indicators of the human body. Some studies have shown that: hemoglobin content, myoglobin weight and erythropoietin and other physiological indicators have increased, especially the body's blood lactic acid has reached a level that plain training cannot achieve, resulting in improved cardiovascular function and improved aerobic endurance In order to improve the athlete's athletic ability during the plateau effect after going down the plain, and low altitude and high altitude areas are more suitable for altitude training [3].

The other type mainly studies the innovation of training methods and methods in different geographical environments. For example, the exploration of various training methods for athletes in different training environments, such as the production of altitude training is a good example.

3.2. The influence of geographical environment on the physical exercise population

In recent years, with the improvement of the economic level, more and more people have joined the ranks of physical exercise. The geographical environment not only affects the exercise behavior, exercise method, exercise attitude of the physical exercise group, but also the air pollution in the geographical environment and other factors It will also have a negative impact on the physical fitness of physical exercisers.

3.2.1. The influence of geographical environment on exercise behaviour and methods. The better the natural environment, the more conducive to promoting physical exercisers continuous physical exercise. Exercisers who like outdoor sports are more affected by the natural environment, but less affected indoors. Poor air quality and weather conditions will inevitably lead to outdoor sports Interruption of exercise, some residents who like outdoor physical exercise interrupt physical exercise because of the harsh natural environment, but some exercisers switch from outdoor to indoor to continue physical exercise. Indoor air quality affects whether indoor exercisers continue to exercise in this place the important factors of exercise, poor indoor air quality and other environments are not conducive to residents' continuous exercise.
3.2.2. The impact of geographical environment on health. It has become an indisputable fact that environmental factors affect body health. The material basis for human survival is the environment, so physical exercise needs to be performed in a suitable environment for the human body. If environmental pollution causes abnormal environmental rhythms, abnormal environmental rhythms will have an inherent rhythm for human life cause interference, thereby breaking the order of the inherent rhythm and causing the disorder of life rhythm [4]. However, the current environmental problems in China are not optimistic, so in sports, attention should be paid to a variety of factors such as time and place, and the benefits and avoid the harm. Environmental factors reduce the health hazards of physical exercisers to a minimum. Exercise should avoid physical exercise during periods of severe air pollution. When the air quality is poor, try to avoid physical exercise outdoors, and pay attention to reduce the amount of exercise, not do strenuous exercise.

4. Sports and Environmental Protection

Nowadays, with the development of industrialization, the problem of the earth’s environment on which humans depend is becoming more and more prominent. Protecting the environment has become one of the important challenges facing mankind. There is an inevitable connection between environmental protection and sports, which is mainly reflected in the first sports Exercise cannot be separated from a good natural environment. Take air pollution as an example. The human body is exposed to polluted air and inhales pollutants and causes disease. As the concentration of pollutants in the air environment increases to a certain level, it will directly affect the water resources and food that affect the earth, the human body inhales heavy metal substances, particulate matter, and sulfur-containing compounds in the polluted air, which cause a large number of chronic diseases, which cause serious harm to human life and health [5]. In addition, people in the natural environment carrying out sports activities in China may also bring some pollution to the environment, which is mainly reflected in the damage to the geographical environment. For example, when constructing large sports venues, it may cause vegetation damage; when holding competitions, it will cause noise pollution and garbage. Accumulation and other issues. In addition, some sports may also have some environmental pollution factors, such as some large Mechanical items (motorcycles, racing cars, skydiving, hot air balloons), etc., emit a lot of exhaust during sports activities; the weightlifting and gymnastics events use anti-skid powder of magnesium sulfate, and the table tennis players use the atmosphere Contaminated glue will have an impact on the atmospheric environment.

5. Future research prospects

At present, China is paying more and more attention to the development of mass sports, and the upsurge of national fitness is coming. At the same time, as people pay more attention to environmental issues, sports and environmental related research will also receive widespread attention from sports research, and the breadth of research. Both the depth and the depth will be further increased. For now, at least the following aspects will be improved:

5.1. Research on Sports and Environmental Protection

The current quality of China’s geographical environment needs to be improved. The geographical environment is the basis for the development of sports, and it is also an important factor affecting the quality of sports. Future research on sports and the geographical environment can be achieved by increasing the awareness of environmental protection in sports and building stadiums. Environmental risk avoidance, sports participants' protection of the environment, sports supervisors and sports event viewers and other environmental protections. Research on the legislative level of sports environmental protection also needs to be strengthened.

5.2. Research on geographical environment and sports culture

At present, the research on sports and geographical environment mainly focuses on sports training, competition and physical exercise. The impact of geographic environment on sports culture is still rare,
so the research on geographic environment and sports culture can also become an expansion. For example, from the perspective of the geographical environment, the pursuit of the roots of traditional Chinese sports culture, the study of the geographical environment on the origin and diffusion of traditional national sports, the development of national fitness and competitive sports, and the study of the natural environment.

5.3. **Sports industrialization and geographical environment**

The development of sports is restricted by geographical environment, so is the development of sports industry. At present, the industrialization of sports makes sports an important economic activity, and the development of sports industry must rely on the local geographical environment. Sports construction industry and sports tourism industry in sports industry are directly related to geography, natural environment and other factors. As we all know, China will hold the 24th Winter Olympic Games in Beijing and Zhangjiakou from February 4, 2022 to February 20, 2022. Zhangjiakou is a temperate continental monsoon climate, with an average annual temperature below 9°C. It is located on the windward side of Yanshan and Taihang Mountains. It has a large amount of precipitation and is rich in grassland resources and ice and snow resources. For example, Chongli, a natural snow field, has a long snow period. From the end of October to the middle of April of the next year, the mountains are covered with snow. It is very close to Beijing, Tianjin, central Hebei and Eastern Hebei, which are rich in population resources. The roads are smooth, fast and convenient. It is very suitable for you to come here for sightseeing and fitness [6].

5.4. **The new interdisciplinary of sports, geography and environment will be paid more and more attention by researchers**

With the deepening of the research on sports and geographical environment, new interdisciplinary will eventually appear in the field of sports and geography, sports and environment. The characteristics of sports show that sports, like geography, are both spatial sciences. The concept of space and location in geography is not only the basis of sports geography research, but also the central issue of defining sports and understanding the importance of sports. At the same time, sports and geography, sports and environment and other interdisciplinary research on sports culture also has a certain relationship, because the formation of sports culture is not only related to the level of productivity development, national habits, religious beliefs, but also related to the geographical environment in which people live. Therefore, these interdisciplinary will certainly drive the development of sports research.

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