

Looking to the Future

Scientific and Technical Preparation for Beijing 2008 Olympic Games

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Beijing 2008 Olympic Games obtained great support from the Chinese Government and the world Olympic family. Everyone is expecting a successful and splendid Olympic Games to be held in Beijing. For the purpose of bringing the function of sport science and technology into full play, improving the scientific level of sport training and promoting the rapid development of the competitive sports in China, the Chinese department responsible for sport is providing the scientific and technical support to the Chinese athletes for winning good results in 2008 Olympic Games. The training programs and scientific projects were worked out and the main contents are as follows:

I. Enhancing the Training of Athletes for Preparing 2008 Olympic Games

At present, there are 195 training departments responsible for the training of top athletes in 31 provinces in China and 19899 athletes are included. There are 199 sport schools including 55818 students; sport schools for children are 1782 in which 185184 pupils are training there. Therefore, a 3-level training system (high level/middle level/primary level) is formed in China. The ratio of the above three levels is 1: 3: 9 like a pagoda shape. This kind of training system is the main resource in the future development of sports in China and the athletes reservation for winning good results in 2008 Olympic Games as well.

II. Construction of the Training Bases for 2008 Olympic Games

Building and perfecting the comprehensive and scientific training bases which integrate training with scientific research will be the foundation and guarantee to improve the sport results and they are the major channels to promote the application and transformation of the scientific achievements as well. For the purpose of realizing the Olympic targets, China State Sports General Administration has greatly increased funds, enhanced the building of training bases and the application of science and technology, in this way the training bases with advanced level in the

world can be guaranteed. The functions of the training bases include scientific test, physical recovery, functional inspection, prevention and treatment of injury and disease, the internet and information system as well. According to the setup and practical requirements of the local training bases in Beijing, we will mainly improve the construction of the science and technology in the following places: Training Center of China State Sports General Administration, Olympic Sports Center, Shooting and Archery Center, Bicycle and Fencing Center, Winter Sports Center, Beijing Sport University, Qinhuangdao Sports Training Center and the provincial and municipal training bases that often take the training tasks of national teams.

III. Science and Technology Guarantee for the Olympic Games

As required by China State Sports General Administration for preparing the 2008 Olympic Games, scientific training and study on the training laws are increased putting the emphasis on the construction of 7 labs:

1. The key lab for sports training supervision

Mainly in charge of the comprehensive training supervision and other related research works to train the excellent athletes in China.

2. The key lab for sports psychology

Mainly in charge of the research and application of sports psychology, guiding psychological training and providing consultation to athletes before the important competitions.

3. The sports medicine research center

Mainly in charge of the research and service of the sports injuries, medical supervision, prevention and treatment of sports injuries and diseases, medical safeguard for the national teams.

4. The sports information center

Mainly in charge of collection and analysis of sports information, setup of the various kinds of sports databases, and the construction of the network sports information system.

5. The physical recovery and sports nutrition research center

Mainly in charge of evaluating and studying athletes' food nutrition and the function of nutrition supplements.

6. The physical training center

Mainly in charge of research of theories and methods relating to the physical training such as strength, endurance and speed and so on.

7. The Doping control center

Mainly in charge of the research and application of anti-doping, newly establishment of doping control lab for horses and undertaking the doping control for Beijing 2008 Olympic Games.

IV. The 11 Important Research and Service Fields in the Olympic Games

For the purpose of guaranteeing the Chinese athletes to get good results in Beijing 2008 Olympic Games and making contributions to the development of the world sports, China State Sports General Administration worked out 11 important research and service fields under the guidance of experts.

1. The scientific selection of athletes

The study of the new indexes and new technology for selecting athletes, and the development and application research of the biological and psychological indexes of athletes selection in dominant and sub-dominant events (about 20 events), the setup of indexes systems for senior athletes selection and its scientific evaluation system for the dominant and sub-dominant events in the Olympic Games.

2. The study of the scientific training theories and measures

The keys are to study the training experiences of years in advantageous events and special events, to study the change regulations of training structures and training loads in the focused physical items, to study the techniques and tactics rules in the focused skill items, to study the physical training theories and measures, to study the training theories and measures in plateau training and the stimulated circumstance, and to study the evaluation methods and standards for scientific training.

3. The study of the scientific supervision and the functional evaluation for the training of the excellent athletes

The keys are to study and evaluate the training loads and measures of various events, to study the mechanism of the low sports testis ketones, anaemia, and the weak immune function, to exploit and apply the biological chip technology into the function evaluation, to study the nervous immunity indexes before games, to inspect and control the motion and psychological status of athletes before games, to inspect the brain function of athletes, to study the physical inspection indexes system and evaluation system of key items, to study the quick processing and feedback system of the spot motion

pictures, to study the sports techniques and tactical training inspection, and to study the sports technical imitation system.

4. The study and application of the physical recovery of athletes and sports nutrition

Putting the emphasis on the research and application of physical recovery and nutrition supplements, the new technology of physical recovery biological inspection, the food safety and function evaluation of sports nutrition.

5. The sports psychological consultation and the study and application of the training theories and measures

The key is the study of psychological training of various items, psychological training test and appraisal, the factors to form the best psychological status and training measures, the expansion training of basic psychological skills, and the intellectual psychological test system.

6. The study and application of the prevention and treatment of sports injuries and diseases

The emphasis is put on the study of prevention, diagnosis, treatment , and recovery systems for common injuries in various sport events, the standardized measures of on- the-spot first-aid for acute sports injuries, the new technology of the non-destructive and micro-destructive diagnosis and treatment for sports injuries and diseases, the health inspection of athletes with great stature, the adjustment measures of the time difference and circumstances in the international games, the adjustment means of menstrual cycles of female athletes, and the computer experts diagnosis system for sports injuries and diseases.

7. The development and application of the Chinese medicine

The key is the development and application of the Chinese medicine to cure sports injuries and sports insomnia, low sports testis ketones, anaemia, the unbalanced body fluids, and weak immune function.

8. The study and application of anti-doping methods

The key is the study and application of China anti- doping quality control system, the inspection of doping contents in food and others, the inspection of Pha stimulants, the new stimulant products and the doping inspection methods for horses.

9. The study and application of sports information service

The key is the research and application of the new means and measures of the sports information service, the sports information control system and various kinds of databases, the comparison of the strength of athletes home and abroad, the trend and class of the world sports, and the mid- and long term sports records and the short term prediction and the corresponding measures.

10. The development of the special training and competition equipments

Putting the emphasis on the development and application of the special training equipments for the various events, and the corresponding scientific test instruments and evaluation systems.

11. The comprehensive management and strategic research of the competitive sports

The focal points will be put on the establishment and implementation of the standardized system of the competition management for the Olympic Games, the humane study of different groups during the games, the strategic study of the objectives and equipments for the Chinese athletes in Beijing 2008 Olympic Games, the study of the systems for training and administering the excellent athletes, the study of the scientific training inspection systems, the competition systems and relative policies in China.

For the purpose of realizing the targets in Beijing 2008 Olympic Games, the Chinese sports administrative department is providing great support from policy and funds expenditure and has begun to organize the above programs. However, whether the expected targets could be realized will be inspected by the practice. We hope to make good cooperation and academic exchange on sport science with the colleagues of the world. We are expecting the attention and support from all the participants of the conference.

At last, I sincerely hope that everybody here could have a chance to attend the Scientific Conference of Beijing 2008 Olympic Games and you are warmly welcome to Beijing!

Thank you for your attention.