Impact of Establishment of Ministry of Emergency Management on China's Emergency Work

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Abstract: Ministry of Emergency Management has been established for more than four years, which has had a significant impact on the emergency work. From six aspects such as the change of emergency responsibilities including permission change, process change, mode change and cultural change, from the sub department management of single disaster and accident to the comprehensive management of natural disasters and accident disasters including change from single event oriented to set event oriented, change from single emergency management to comprehensive emergency management and change from single mode to combination of multiple modes, from the development of safety industry to the integrated development of safety emergency industry including initially form the spatial pattern of "Two Belts and One Axis", the industrial park develops rapidly and has distinctive characteristics and the future industrial space development presents four major trends, unprecedentedly developed emergency education including major construction, discipline development, school construction and alliance development, from traditional safety thinking to risk emergency thinking including before incident, incident emerging, during incident and after incident, and the continuous reduction of disaster accidents and losses from incident numbers, incident seriousness, incident deaths and incident losses, this article analyzes the impact of the establishment of Ministry of Emergency Management on China's emergency work.

Keywords: Ministry of Emergency Management, Emergency Responsibility, Comprehensive Management, Risk Emergency Thinking, Integrated Development, Emergency Education

1. Introduction

On March 17, 2018, the first meeting of the 13th National People's Congress heard the statement on the institutional reform plan of State Council, made by State Councillor Wang Yong entrusted by State Council, reviewed the institutional reform plan of State Council, and decided to approve the plan, which involves the establishment of Ministry of Emergency Management. On April 16, 2018, Ministry of Emergency Management of the People's Republic of China was officially listed [1]. The establishment of Ministry of Emergency Management has brought the following six important impacts on China's emergency work [2].

2. Change of Emergency Responsibilities

Ministry of Emergency Management shall be established to integrate the responsibilities of the State Administration of Work Safety, the emergency management responsibilities of the general office of State Council, the fire management responsibilities of Ministry of Public Security, the disaster relief responsibilities of Ministry of Civil Affairs, the geological disaster prevention and control of Ministry of Land and Resources, the flood and drought disaster prevention and control of Ministry of Water Resources, the grassland fire prevention of Ministry of Agriculture, the forest fire prevention related responsibilities of State Forestry Administration, the earthquake disaster emergency rescue responsibilities of China Earthquake Administration, National Flood Control and Drought Relief Headquarters of National Disaster Reduction Commission, Earthquake Relief Headquarters of State Council, and National Forest Fire Prevention Headquarters shall be integrated in their functions and responsibilities as the constituent departments of State Council. China Seismological Bureau and State Coal Mine Safety Supervision Bureau are managed by Ministry of
Emergency Management. After the transformation of the public security fire fighting force and the armed police forest force, together with the safety production and other emergency rescue teams, they will be taken as the comprehensive standing emergency backbone and managed by Ministry of Emergency Management. State Administration of Work Safety will no longer be retained.

The main responsibilities of reorganized Ministry of Emergency Management are: organizing the preparation of the national emergency master plan, promoting the construction and drilling of the emergency plan system; establishing a disaster reporting system, uniformly dispatching the construction of emergency response teams and material reserves, organizing the construction of disaster relief systems, and assuming the command of the state in response to major disasters; guiding the prevention and control of fire, flood and geological disasters. Before the reorganization, the emergency response office of State Council, was only an office to convey information and coordinate various departments, without the function of directly commanding the emergency response forces, which were scattered among various departments and committees. In fact, the dispersed forces still need the unified coordination of State Council. Newly established Ministry of Emergency Management is conducive to the unified command and response of emergencies and the construction of professional personnel.

2.1. Permission Change

Through the establishment of Ministry of Emergency Management in State Council, it is clear that the emergency management organization belongs to the constituent Department of State Council, and has unified and centralized command power, which changes the situation that the rescue command is conducted by the temporarily established committee, and also changes the original emergency management from coordination to resource allocation.

2.2. Process Change

The emergency response law requires the state to establish an emergency management system based on unified leadership, comprehensive coordination, classified management, hierarchical responsibility and territorial management. In most cases, emergencies occur at the grass-roots level, and early handling and territorial management are very important. According to the principle of hierarchical responsibility, the process of emergency management, command, coordination and disposal has changed. Local governments at all levels are responsible for the coordination and disposal of general disasters, and Ministry of Emergency Management represents the central government for unified response and support; In the event of a major disaster, Ministry of Emergency Management, as the command department, shall assist the responsible comrades designated by the central government in organizing emergency response work to ensure that the government order is unimpeded and the command is effective. Ministry of Emergency Management shall properly handle the relationship between disaster prevention and relief and establish an effective coordination mechanism [3-5].

2.3. Mode Change

Establishing Ministry of Emergency Management to realize centralized command and unified management of rescue forces, centralizing the main rescue forces to one department, and changing the previous phenomenon that rescue forces are scattered in multiple departments. Once a particularly serious accident or natural disaster occurs, it is far from enough to rely on Ministry of Emergency Management at all levels. A comprehensive standing emergency backbone can be built and a new combination of "rescue teams" can be formed. This will have a profound impact on the joint training, collaborative training and rescue cooperation of the national rescue forces. In the past, on-duty emergency response was carried out in individual areas of disasters and accidents. After the establishment of Ministry of Emergency Management, there were night watchmen around the country and the people, and the degree of safety and the sense of safety were greatly enhanced [6-8].

2.4. Cultural Change

The 13 departments that constitute Ministry of Emergency Management have formed their own emergency mode and emergency culture with their own characteristics and styles for a long time. After the establishment of Ministry of Emergency Management, these departments need to run in and adapt to each other, break the separation of interests between departmentalism and the original departments, and form an open and inclusive new emergency culture [9-13]. After more than four years of tempering, the emergency system has formed a strong Emergency Force and gradually realized the modernization of the emergency management system and management capacity.

3. From Divisional Management to Comprehensive Management of Natural and Accident Disasters

The establishment of Ministry of Emergency Management is to transform the previous single disaster and accident management into comprehensive management of natural disasters and accident disasters based on the experience of emergency management in recent years, so as to achieve centralized and efficient resources, unified command, both professional and regular functions, sensitive response, linkage between upper and lower levels, and peacetime and wartime integration.

3.1. Change from Single Event Oriented to Set Event Oriented

With the rapid economic and social development, especially the deepening of the urbanization process, a single disaster event will produce secondary or derivative disaster
3.2. Change from Single Emergency Management to Comprehensive Emergency Management

For a long time, China has implemented a "single disaster type" emergency management system. For example, the civil affairs department is responsible for natural disaster relief and the fire department is responsible for fire accident rescue. The advantages of this classified management mode are specialization and verticality, but at the same time, it is inevitable to form a model with too fine division, resulting in a lack of effective linkage, which limits the overall capacity and comprehensive effect of emergency response. Establishing Ministry of Emergency Management, further integrating and optimizing the emergency forces and resources, changing from single emergency management to comprehensive emergency management, overcoming the shortcomings of the original independent management, strengthening the overall planning and comprehensive planning of emergency management, and helping solve the problem of unbalanced development of emergency capacity are required. Comprehensive emergency management is embodied in the "four all" emergency management of all personnel, all objects, all processes and all methods.

3.3. Change from Single Mode to Combination of Multiple Modes

The establishment of Ministry of Emergency Management can further integrate and optimize the emergency response forces and resources, promote the formation of an emergency management system with unified command, special and regular functions, linkage between the upper and lower levels, and combination of peacetime and wartime, and improve the ability of disaster prevention, disaster reduction and disaster relief, specifically through the combination of pre control, peacetime and wartime, military and government, and civil affairs.

4. From Traditional Safety Thinking to Risk Emergency Thinking

Prior to the establishment of Ministry of Emergency Management, as a single disaster accident was managed by departments, there was limited understanding of risk and emergency response at that time. With the rapid development of economy and society, the superposition of disaster and accident risks has led to huge casualties and property losses. The understanding of risks has been deepened. How to prevent and resolve major risks has become the top priority. Drawing on foreign advanced experience, combining with China's national conditions, and based on the practice since SARS, the comprehensive emergency management idea has been recognized. The whole process management of prevention, preparation, response and recovery has become a consensus, which makes up for the situation that the traditional safety thinking emphasizes prevention and neglects preparation, response and recovery, and gradually forms the risk emergency thinking.

The national three-year action plan for special rectification of production safety issued by the safety committee of State Council, mainly focuses on nine industries such as coal mines, non-coal mines, hazardous chemicals, fire-fighting, road transportation, civil aviation and railway, industrial parks, urban construction and hazardous wastes, which are high-risk and prone to accidents. On April 1, 2020, the national three-year action for special rectification of work safety was launched and will end in December 2022.

On June 8, 2020, the general office of State Council of the people's Republic of China issued the notice of the general office of State Council, on conducting the first national comprehensive risk survey of natural disasters. The national comprehensive risk survey of natural disasters is a major survey of national conditions and national strength, and a basic work to improve the ability to prevent and control natural disasters. Through conducting a general survey, we will find out the number of potential risks of natural disasters in the country, find out the disaster resistance capacity of key areas, objectively understand the comprehensive risk level of natural disasters in the country and all regions, and provide authoritative disaster risk information and scientific decision-making basis for the central and local people's governments at all levels to effectively carry out natural disaster prevention and control work and effectively ensure sustainable economic and social development.

5. From Development of Safety Industry to Integrated Development of Safety Emergency Industry

In 2014, the general office of State Council, issued the opinions on accelerating the development of the emergency industry. However, at that time, the emergency management system was not perfect, and there was no clear direction for the development of the emergency industry. However, with the establishment of Ministry of Emergency Management, the comprehensive emergency management system was clearer, and the safety industry and the emergency industry started to develop in an integrated manner. All regions were planning...
the construction of the emergency safety industrial park, and some regions had formed a cluster advantage. The safety emergency industry also integrates advanced technologies such as big data, artificial intelligence and UAV to improve the industrial quality, scientific and technological level and emergency rescue capability.

5.1. Initially form the Spatial Pattern of "Two Belts and One Axis”

At present, China's safety and emergency industries have initially shown the characteristics of cluster distribution, forming an overall spatial pattern of "two belts and one axis" integration of the two industries. The first belt is the industrial "Eastern development belt" from Changchun City of Jilin Province in the north to Shenzhen city of Guangdong Province in the south, from the coast of Changbai Mountain to the Pearl River Estuary; The second belt is the industrial "Western rising belt" from Urumqi, Xinjiang in the west, to Guiyang, Guizhou in the south, and from the foot of Tianshan Mountain to the Yunnan Guizhou Plateau; The first axis refers to the "Central Industrial connecting axis" from Hefei, Anhui Province to Changsha, Hunan Province, including Anhui, Jiangxi, Hubei and Hunan. Relying on the original resources, industrial base and talent advantages, these regions vigorously promote the integrated development of the safety industry and the emergency industry.

5.2. The Industrial Park Develops Rapidly and Has Distinctive Characteristics

Since the approval of the construction of China's first national safety emergency industrial base in 2009, China has successively built 11 national safety industrial demonstration parks (including the founding units), and a total of 20 national emergency industrial demonstration bases in three batches since 2015. The industrial parks are mainly distributed in the eastern region. The development of the parks is either supported by scientific research technology, supported by supporting services, or guided by market demand. Among the key parks, Xuzhou, Hefei, Nanhai, Xi'an, Wenzhou and Tangshan have developed most rapidly. Among them, Xuzhou is the benchmark for building parks leading the country, Hefei is the model for information technology, Nanhai is the highland for actively building intelligent manufacturing and safety services, Xi'an is the bridgehead for building industrial development in the west, Wenzhou is the cluster for building integrated development of emergency safety, and Tangshan has developed into a base for intelligent emergency equipment manufacturing.

5.3. The Future Industrial Space Development Presents Four Major Trends

The future industrial space development presents four major trends: First, the construction of the national emergency management system will guide the industrial layout to be more reasonable. According to the need to improve the national unified emergency material support system, integrate the strength of the safety industry and the emergency industry, make a reasonable layout, and take into account the dual responsibilities of industrial development and material support; Second, the development of industrial characteristics and differentiation has made the regional division of labor clearer. The Yangtze River Delta and the Great Bay area of Guangdong, Hong Kong and Macao rely on a solid industrial foundation to transform traditional industries with intelligence and informatization. The central and western regions, on the other hand, have seized the opportunity of industrial transfer and made efforts in the local advantageous manufacturing and service areas; Third, the industrial pattern of being strong in the East and weak in the West will gradually weaken. At present, the development of safety and emergency industry in the eastern province takes the lead in China, and the number of demonstration parks also accounts for more than 60%. With the growth of the number of demonstration parks in the west, the enthusiasm for the development of safety and emergency industries in the central and western regions will be further strengthened; Fourth, the regional layout under the background of industrial integration will be more reasonable. The safety industry and the emergency industry belong to the same field, which is an important support to solve the social security development in China and a reliable force to improve the emergency support capacity and safety prevention level in China. The integrated development is the general trend.

6. Disaster Accidents and Losses Continue to Decrease

After the establishment of Ministry of Emergency Management, it has balanced safety and emergency development, paid more attention to practical results, adhered to the combination of disaster prevention, mitigation and relief, and greatly reduced disaster accidents and losses [14]. In 2018, under the strong leadership of the Party Central Committee and State Council, and the joint efforts of all parties, the number of missing persons, collapsed houses and direct economic losses caused by natural disasters decreased by 60%, 78% and 34% respectively compared with the average value in the past five years; Compared with the previous year, the total number of production safety accidents, major accidents and major and extraordinarily serious accidents have achieved "three drops", of which the number of major and extraordinarily serious accidents and the number of deaths have decreased by 24% and 33.6% respectively. For the first time since the founding of new China, there have been no extraordinarily serious accidents with more than 30 deaths in the whole year, effectively safeguarding the safety of people's lives and property and social stability.

In 2019, with the joint efforts of all parties, the national safety situation remained stable, the total number of work safety accidents, major accidents and more major accidents kept "three drops", and the number of natural disaster deaths and missing persons, the number of collapsed houses, and the proportion of direct economic losses in GDP were
significantly lower than the average in the past five years. It effectively responded to the Shanxi Xiangning landslide, the Shanxi Qinyuan major forest fire, the Sichuan Changning M6.0 earthquake, the huge landslide in Shuicheng, Guizhou, the super typhoon "lichima" and the Xiangshui explosion in Jiangsu have created a good safety environment for celebrating the 70th anniversary of the founding of new China.

In 2020, through the joint efforts of all parties, the number of work safety accidents and the number of deaths in China decreased by 15.5% and 8.3% respectively year on year in 2020. Emergency management has achieved "three historical lows and two historical firsts" since the founding of new China. The number of deaths and missing persons due to natural disasters is the lowest in history, the number of work safety accidents and the number of deaths is the lowest in history, and the number of major accidents and deaths is the lowest in history. For the first time, there were no particularly serious accidents, and for the first time, there were no major accidents in key industries such as chemical industry, fireworks and firecrackers, non-coal mines, industry, commerce and trade.

In 2021, the number of national work safety accidents and the number of deaths decreased by 11.0% and 5.9% respectively year-on-year. For the second consecutive year, there was no particularly serious accident, which was the longest interval since the founding of new China; The number of people affected by natural disasters, the number of deaths and disappearances due to disasters, the number of collapsed houses and the direct economic losses decreased by 28.0%, 10.4%, 18.6% and 5.5% respectively compared with the average value in the past five years.

7. Education in the Field of Emergency Has Achieved Unprecedented Development

After SARS in 2003, China started the exploration of emergency education. After the establishment of Ministry of Emergency Management, the emergency education began to develop unprecedentedly in terms of major construction, discipline development, school construction and alliance development [15].

7.1. Major Construction

After the establishment of Ministry of Emergency Management in March 2018, the emergency work has received unprecedented attention. Liaoning University of Engineering and Technology and Taiyuan University of Technology took the lead in applying to the national education department for undergraduate major in emergency technology and management, which was approved in March 2019. This has become a new start in emergency education. In March 2020, the state education department approved four universities including Henan University of Technology, Xi’an University of Science and Technology, North China Institute of Science and Technology, and Institute of Disaster Prevention Science and Technology to offer undergraduate major in emergency technology and management, and approved Wuhan University of Technology to offer undergraduate major in emergency management under the discipline of management science and engineering. In March 2021, the state education department approved 16 universities including China University of Mining and Technology (Beijing), China University of Geosciences (Wuhan) and China University of Labor Relations to offer undergraduate major in emergency technology and management, and 20 universities including Hehai University, China University of Geosciences (Wuhan), Jinan University and North China Institute of Science and Technology to offer undergraduate major in emergency management. In March 2022, the state education department approved 13 universities including Beijing Normal University, China University of Geosciences (Beijing) and Shanxi Datong University to offer undergraduate major in emergency technology and management, and 13 universities including China University of Mining and Technology, Shanxi Normal University and Inner Mongolia University of Science and Technology to offer undergraduate major in emergency management. At present, it has formed a pattern in which more than 30 universities of emergency management undergraduate major and emergency technology and management undergraduate major each carry out basic personnel training in the emergency field.

7.2. Discipline Development

Up to now, there are more than 40 secondary disciplines and cross disciplines involved in emergency. The about 30 secondary disciplines include Peking University (public health emergency management, emergency management), Renmin University of China (emergency management), Tsinghua University (emergency management), Beijing University of Aeronautics and Astronautics (emergency management), Party School of the CPC Central Committee (National School of administration) (emergency management) and so on; The nearly 10 cross disciplines include Beijing University of Science and Technology (public safety and emergency management), Dalian University of Technology (intelligent disaster prevention and emergency management), China University of Mining and Technology (emergency technology and management) and so on. It took only 2-3 years for China's emergency education to form a situation of full coverage in scale and level.

7.3. School Construction

In addition to the construction of majors and disciplines in the field of emergency, various emergency schools are also under construction. One is to add emergency content to the original school, the other is to split the school to form a new school with emergency content, and the other is to build (jointly build) a provincial emergency management school with local departments and bureaus.

In March 2020, the planning center of Ministry of Education announced the construction list of the first batch of
"emergency safety intelligent learning workshop" and emergency management school in 2020. 19 universities in the country were selected, including 5 "double first-class" universities, 2 comprehensive universities directly under Ministry of Emergency Management, 10 provincial key universities or universities jointly built by the province and the ministry, and 2 characteristic application-oriented universities. They are: Chuzhou University, Dalian Jiaotong University, College of Disaster Prevention Science and Technology, North China University of Science and Technology, Hebei University of Engineering, Jinan University, Jimei University, Jilin University of Architecture, Kunming University of Technology, Liaoning University of Petroleum and Chemical Technology, Liaoning University of Technology, Nanjing University of Information Engineering, Shenyang University of Chemical Technology, Taiyuan University of Technology, Xi'an University of Science and Technology, Northwest University, China University of Mining and Technology, Ocean University of China, Zhejiang Security Vocational and Technical College. From the end of 2020 to the beginning of 2021, Beijing University of Posts and Telecommunications and University of Chinese Academy of Sciences joined the construction list of "emergency safety intelligent learning workshop" and emergency management school.

7.4. Alliance Development

In order to better promote the development of emergency education, in July 2019, the emergency and safety industry education integration alliance was established in Beijing. It was jointly initiated by the school planning and construction development center of Ministry of Education, China Modern Education Research Center and Xinxing Jhua Emergency Industry Co., Ltd., with the participation of 73 universities and 68 well-known enterprises and scientific research institutes. In December 2019, the national emergency safety vocational education alliance was established in Changsha, and 68 units including emergency safety related colleges and industrial enterprises from all over the country joined the alliance; In June 2021, the national alliance of emergency management undergraduate universities was established in Xi'an, consisting of 23 universities that have been approved as emergency management and emergency technology and management undergraduate major; In October 2021, the national alliance of emergency technology and management undergraduate universities was established in Beijing. A total of 25 universities including 21 universities approved for emergency technology and management undergraduate major, 2 universities willing to apply for emergency technology and management undergraduate major, and 2 related units joined the alliance.

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