National Audit of Public Emergencies: Internal Mechanism and Realization Path

——Analysis Based on the National Audit Practice in American Public Emergencies

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Abstract. Public emergency refers to the sudden public crisis, mainly including natural disasters, accident disasters, public health events, social security events, etc., has the characteristics of sudden, public, serious and extensive influence, a serious threat to people's life and health and property safety, causing great damage to the economy and society. Nowadays, human society has entered the "high incidence period" of public emergencies, and countries all over the world attach great importance to the emergency handling of public emergencies. National audit as an important part of the national supervision system, participate in public emergency handling, is a special period of national audit service governance, different national public emergency audit timing, audit content, audit methods and so on each different, also produced different audit effect, lead to national audit in the role of public emergency response system is not the same. The emergency management system of the United States is relatively perfect, and the national audit of public emergencies is conducted early, involving a wide range, with obvious results and mature technical methods. On the basis of organizing and summarizing the relevant literature, combining with the American emergency management system and audit management system, deeply dissecting the audit scope, audit content, audit type, audit results and analyzing the internal mechanism of public emergencies, proposed the realization path of public emergencies, in order to provide reference and reference for the national audit of public emergencies.

Keywords: Public emergencies, National audit, American, Big data

1 Introduction

Public emergencies refer to the sudden public crises, mainly including natural disasters, accidents and disasters, public health events, social security events, etc.[1], with the characteristics of sudden, public nature, severity and extensive influence[2].With the constant change of the natural environment and economic and social environment,

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today's human society has entered the "high incidence period" of public emergencies, and flood, drought, earthquake, explosion and other public emergencies occur from time to time around the world. In the past 20 years, there have been major public emergencies such as the September 11 incident in the US, the Indian Ocean tsunami, the Wenchuan earthquake, the COVID-19 epidemic, the stampede in the Ritaiwon Court in Seoul, and the terrorist attack at the Moscow Concert Hall. Countries all over the world attach great importance to the emergency handling of public emergencies, and most countries are trying to promote the audit of public emergencies, such as China, the United States, the United Kingdom, Canada, Japan and other countries have carried out earthquake disaster prevention audit, flood management audit, influenza prevention follow-up audit, etc. Since the outbreak of COVID-19 in 2020, many countries have carried out COVID-19 audits, auditing the emergency management system and mechanism, fund allocation, management and use, funds and project performance, which has played an important role in the prevention and control of the epidemic. However, different countries have different audit opportunities, audit contents and audit methods in public emergencies, which also produces different audit effects, leading to the different role of national audit in the response to public emergencies system. The emergency management system of the United States is relatively perfect, and the national audit of public emergencies is conducted early and involves a wide range of areas. In particular, the public emergency prevention audit and performance audit have achieved obvious results, and the technology and methods are mature. It is important to analyze the national audit practice of public emergencies in the United States and further study the internal mechanism, characteristics, function and path of the national audit of public emergencies.

2 Literature Review

Scholars have studied the national audit of public emergencies for a long time, especially after the COVID-19 outbreak in 2020, and there are many relevant literature, including the theory and practice of the national audit of public emergencies.

2.1 Research on the National Audit Theory of Public Emergencies

Based on the classical audit theory and public crisis management theory, some scholars have put forward the basic theoretical framework of public emergency audit. Zheng Shiqiao of public emergency audit requirements, audit nature, audit objectives content of nine aspects of the system analysis, put forward the basic theoretical framework of public emergency audit[3], expounds the national audit involved in emergency public events and path selection, points out that the emergency disposal and post-disaster reconstruction national audit intervention is necessary, to ensure policy implementation and reasonable use of financial funds plays an important role[4]. Gao Wei sorted out the theoretical, historical and realistic logic of the audit of sudden public events, and pointed out that the national audit is an important supervision and governance mechanism to promote the timely emergency response of sudden public events[5], Li Xiaoning and Li Lingling analyzed the responsibilities of government departments at all levels in sudden public events based on the principal-agent theory, proposed the follow-up audit of the whole process, and urged the government to effectively fulfill its responsibilities. Based on the theory of "immune system"[6], Tao Lan and Li Qin proposed that the national audit of emergency supplies for major public health events should play the function of revealing and supervision in the active prevention, outbreak period and remission period during the early warning period[7].

2.2 Research on the Implementation Path of National Audit for Public Emergencies

By analyzing the characteristics of sudden public events, some scholars construct the audit mode of public emergencies; some scholars propose the methods and contents of public emergency audit based on performance audit and sustainability audit. Yang Deming and Xia Min used the principal agent model to analyze the different stages of major natural disasters, pointed out that the public have different interest demands in different stages, the audit objectives should be changed, and the audit methods should be adjusted at any time[8]. Meng Zhihua proposed that the audit process should be optimized from five aspects: formulating the audit plan for major public emergencies, setting up the emergency audit team and operation mechanism, building an appropriate audit standard system, improving the audit information disclosure system, and strengthening the audit accountability system[9]. Zheng Shiqiao analyzes financial audit, performance audit, compliance audit, system audit, system audit and comprehensive audit, prevention and emergency preparedness audit, monitoring and early warning audit, emergency response and rescue audit, and post recovery and reconstruction audit[10]. Hua Jinqiu believes that the audit methods of public emergencies mainly include whole-process tracking audit, "routine audit + computer audit" mode, "routine audit + audit investigation" mode, and the mode of "same-level audit + upper and lower audit"type[11]. Zhu Zhihong, Du Xiangling, Pan Junren, et al. proposed to build a big data platform and carry out big data audit[12]. Wolfgang Fengler and other scholars pointed out that the post-disaster reconstruction audit should pay attention to whether there are specialized agencies to manage the post-disaster reconstruction and whether the flow of post-disaster reconstruction funds is in compliance[13]. Mohamed MohsinKhan believes that in the emergency audit, attention should be paid to the timeliness of the audit, the adequacy and relevance of obtaining audit evidence[14]. JohnR.Labadie proposed to use performance audit procedures and performance evaluation methods to carry out public emergency review[15].

2.3 Comparative Analysis of the Audit of Public National Emergencies in Different Countries

Some scholars analyze the experience and practices of public emergency audit in various countries through cases. Sun Bowen, Zhou Weipei collected the United States, Germany, France, Britain, Brazil, Canada, Russia and other countries the highest audit institutions about epidemic audit information, put forward from the policy implementation of supervision and verification, response system of evaluation and improvement, information release and collection, Suggestions for national governance, etc[16]. Yang Jingjing, Zhang Dong etc. analyzed the public crisis audit of international audit organizations, the United States, Estonia, Pakistan and other countries, and proposed to pay attention to crisis prevention audit and crisis performance audit[17]. Liu Hongjie, Jiang Zhenchun, etc. studied the audit of public emergencies in the United States, and proposed that the United States should focus on the audit of strategy, system, policy, management and other aspects, and focus on prior audit[18].

In general, scholars generally believe that it is necessary to carry out national audit of public emergencies, but the existing literature has more studied the audit content and audit methods of national audit of public emergencies, and less studied the theory and role of national audit of public emergencies. The audit of public emergencies has strong stage, wide coverage and rapid change. From the basic theory, it has important theoretical value to systematically study the national audit of major public emergencies. Based on this, this paper starts from the basic theory of public crisis and national audit, combines the practice of national audit for public emergencies in the United States, and then considers the related problems of national audit for major public emergencies.

3 The Theoretical Basis of the National Audit of Public Emergencies

3.1 Crisis Management Theory and National Audit of Public Emergencies

Robert sith crisis management 4R theory, response to public emergencies by reducing, preparation, reaction, restore four links, namely the overall goal is to reduce the crisis situation attack and influence, to be prepared for crisis situation, try to deal with the crisis has happened, after crisis control to recover and summarize the experience of crisis management. As the subject of public crisis management, the government and relevant departments use public resources to deal with public emergencies. As an important part of the national governance system, the national audit has the responsibility to supervise and evaluate the use of public resources and promote the improvement of the national emergency management system. The timing of audit intervention covers the links before, during and after the event, and plays a role in the whole process of responding to public emergencies.

3.2 Theory of Public Fiduciary Responsibility and National Audit of Public Emergencies

Public fiduciary responsibility refers to that the public sector (such as the government, public institutions, etc.), as the trustee, accepts the entrustment of the public (the principal), and assumes the obligation to report their management and use to the public. This responsibility comes from the principal-agent relationship in democratic politics.

In sudden public emergency handling process, the government, public welfare organizations and the public formed the various principal-agent relationship, in the principal-agent relationship, information asymmetry, incentive incompatibility and environmental uncertainty, need to establish a set of governance mechanism to governance agent agent and optimal problem, to encourage the agent to better the performance of the public emergency response responsibility[19]. As the state supervision department, the state audit can evaluate and feedback the performance of duties, material allocation and use of relevant departments in public emergencies, which can effectively promote the emergency handling of public emergencies[20].

3.3 Theory of "Immune System" and National Audit of Public Emergencies

In 2008, Liu Jiayi, then the auditor-general of Chinas National Audit Office, proposed the theory of "the immune system". The "immune system" theory holds that national audit has three functions: prevention, disclosure and resisting, which is to maintain the seriousness of the national policy and maintain the seriousness of financial discipline and discipline; to reveal the violations of economic and social development; resisting is to make audit suggestions on the basis of exposing and investigating problems and urge the audit rectification. National audit is a supervision subsystem in the large system of emergency response of public emergencies, which has three basic functions of prevention, disclosure and resistance.

4 National Audit Practice for American Public Emergencies

According to the American public emergency management system, the ministry of homeland security is the highest emergency management agencies, the Federal Emergency Management Agency(FEMA) under the department of homeland security is the core coordinating decision-making body for the federal government's emergency management, responsible for preparedness, response to disasters and post-disaster reconstruction and recovery, and reduce the impact of disasters, reduce risk and disaster prevention, etc. Government Accountability Office(GAO) is the highest audit institution of the federal government under the Congress, and is an independent non-party organization. Its main responsibilities include conducting system audit, conducting policy analysis, and evaluating the policy, plan, operation and performance of the federal government; conducting management audit and financial audit, analyzing the use of financial funds, and checking the compliance, efficiency and effectiveness of the use of public funds; investigating relevant illegal activities. According to the GAO website, GAO has issued 360 audit reports and congressional testimony to FEMA since 2000 (as of June 13,2024). This paper takes 360 audit reports and congressional testimony issued by GAO to FEMA as samples, analyzes the audit content, audit scope, audit type and the application of public emergencies particular.

4.1 The Audit Content Focuses on the Performance of Government Departments, and Covers Many Specific Fields Such as National Security, Social Security, Public Health and Natural Disasters

CAO issued 360 audit reports and parliamentary testimony on FEMA, of which 191 audited the performance of FEMA, including the overall strategy, system, mechanism, policy and management of public emergencies; 169 audit reports specifically involved multiple areas of public emergencies. The specific areas of public emergencies can be divided into four categories: national security, social security, public health and natural disasters. Among them, 34 are national security, accounting for 20%, involving national defense, immigration, terrorism, social security, 25,15%, involving transportation, water conservancy, port, electricity, network security; 13 public health, 8%, involving food, medicine, medical treatment; 97 natural disasters, 57%, involving earthquake, flood, fire, hurricane, etc. From the perspective of audit content, CAO focuses on the audit of the performance of federal government departments to improve the national ability to respond to public emergencies. In the specific audit projects of public emergencies, it involves a wide range of people, as shown in Table 1.

Table 1. GAO for FEMA audit domain statistical sheet

The main category	Primary coverage	Number of audit reports	Proportion%
National security class	Cyber security, border security, national defense, immigration, international relations, counter-terrorism, critical infrastructure protection, foreign investment, classified information protection, key technologies, etc.	34	20
Social security	Traffic safety, biochemistry, network, hazardous waste, private guns, water and electricity, etc.	25	15
Public health	Management of toxic substances, food and drug safety, public health, consumer goods, etc.	13	8
Natural disasters	Hurricanes, wildfires, earthquakes, floods, etc.	97	57

4.2 The Scope of Audit Covers the Whole Process of Handling Public Emergencies, Such as Prevention and Emergency Preparedness, Emergency Response and Disposal, Post-Handling and Improvement

Robrt Heath The crisis management 4R theory holds that to reduce the harm of public emergencies, we need to be prepared to deal with the crisis, actively deal with the crisis that has occurred, do a good job in crisis recovery and summarize the experience of crisis management. Based on the 4R theory, the audit scope of public emergencies can be divided into pre-prevention and emergency preparedness audit, in-process emergency response and disposal audit, post-treatment and improvement audit[21]. A total of 360 audit reports and congressional testimony from CAO to FEMA, Prevention and emergency preparedness audit, 198 articles, For 55%, Audit matters include whether the laws and regulations related to public emergencies are perfect, Whether the emergency response plan preplan, organizational system and working mechanism are sound; The emergency response and disposal audit of 77 articles, For 21%, Audit matters include the timeliness and compliance of fund allocation, medical treatment, material support, transportation, prevention and control performance of duties; Post-hoc processing and improvement audit, 85 articles, At 24%, Mainly focusing on the benefits and effects of emergency response, To evaluate the aftermath, the restoration of social order and the social effect. From the perspective of audit scope, GAO audit intervention in public emergencies covers before, during and after the process, but pay more attention to the prevention of audit, pay attention to reveal major potential risks, pay attention to the discovery of management loopholes and internal control weak links, in order to prevent the problems,as shown in the Figure 1.

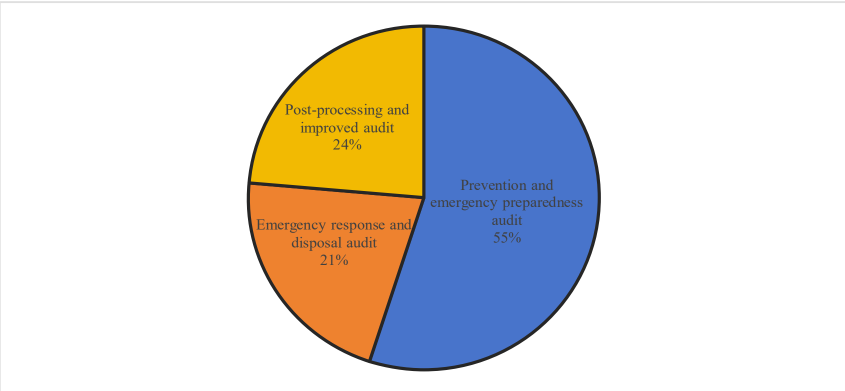

Fig. 1. Distribution of GAO to FEMA

4.3 Audit Types Include Financial Audit, Compliance Audit, Performance Audit, System Audit, etc.

Internationally, audit business is usually divided into four types: financial audit, compliance audit, performance audit and system audit. Some audit projects also combine various types of audit business to carry out comprehensive audit. A total of 360 audit reports and congressional testimony issued by CAO on FEMA, According to the subject of the audit report and the key content of the disclosure, Among them: 24 articles of financial audit, 7%, Focus on the raising, distribution, use and management of disaster relief funds; 25 articles on compliance audits, 7%, Including the handling of public emergencies, related materials and funds use management compliance; 182 articles for performance audits, At 50%, Audit is mainly to evaluate the economy, efficiency and effectiveness in the process of handling before, during and after public emergencies; System audit, 129 articles, For 36%, It mainly focuses on the strategic planning, system and phase of public emergencies, guan policy formulation and update. In terms of audit types, GAO adopts various types of audit in the emergency management audit of public emergencies, but it pays more attention to system audit and performance audit, focuses on the system, mechanism and system of public emergency response, and pays attention to the performance of relevant funds, materials and projects, as shown in Figure 2.

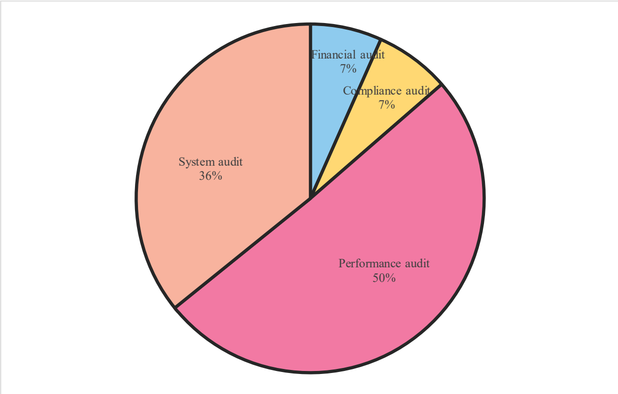

Fig. 2. Distribution map of GAO versus FEMA audit types

4.4 The Audit Results Shall Be Made Public in a Timely Manner and Conduct Follow-Up Management of the Implementation of the Audit Recommendations by the Audited Units

After GAO conducts the audit, it will put forward targeted audit suggestions based on the audit results, and all the audit reports will be made public in a timely manner. GAO has a database of audit recommendations, which stores audit recommendations that have not been solved for problems, and determines the priority level of audit recommendations according to the severity of the problems. Priority audit recommendations are listed separately. In order to promote the implementation of the audit recommendations by the auditees, GAO will summarize the information from time to time and send the priority audit recommendations to the heads of key government departments and institutions that should be highly concerned and the problems are not resolved. It will also follow up in the later audit reports and urge the responsible departments and institutions to implement the audit recommendations. For example, in March 2024, GAO published the audit report "Wild Fire Disaster: Opportunities to Improve Federal Response, Recovery and Disaster Reduction Efforts", which conducted the increasing scale and severity of wildfires in the United States, and noted that FEMA had great difficulty in providing temporary housing in wildfire response and recovery, a long time of contaminated debris and soil cleaning; low pay and career promotion opportunities, recruitment and retention. At the same time, recommendations made in November 2022 and March 2023 to strengthen inter-departmental coordination in the management of wildfire smoke risk and federal disaster recovery were tracked, and found that four of the six recommendations had been partially addressed. As of June 13,2024, there are 5,146 audit recommendations that have not been implemented in the GAO Audit recommendations database, including 40 FEMA recommendations, including 5 priority audit recommendations.

5 The Internal Mechanism of the National Audit of Public Emergencies

5.1 The Relationship Between the Relevant Subjects of Public Emergencies

Public emergencies may occur anywhere in the world, and any country or region or government at any level must establish an emergency handling system for public emergencies. This system includes the government, public welfare organizations, the public and other subjects, and there are various principal-agent relationships between the subjects, as shown in Figure 3.

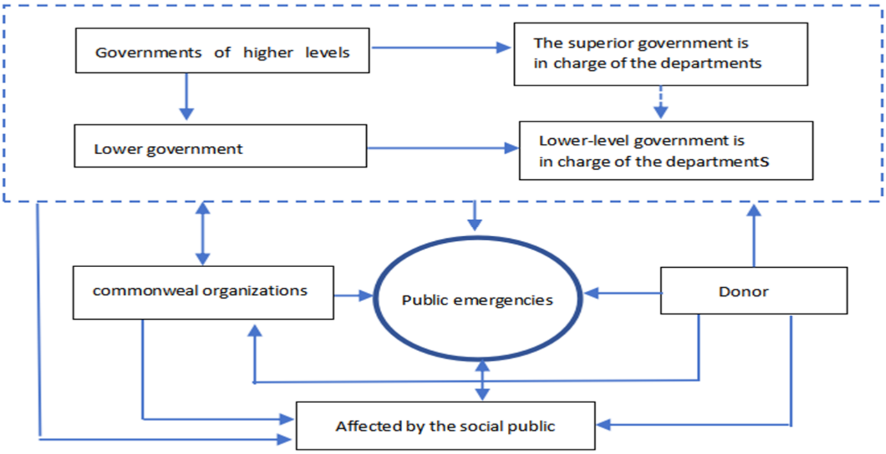

Fig. 3. The relationship diagram between related subjects of public emergency handling

5.1.1 Government and Responsible Departments.

In the process of handling public emergencies, the departments in charge of governments at all levels are responsible for public safety and do a good job in the emergency management, handling and recovery of public emergencies. Governments at all levels shall determine the responsibilities and powers of the departments in charge at the same level, put forward policies and target requirements, and provide the required resources for the departments in charge. Departments in charge of governments at all levels shall prevent, handle and restore public emergencies by establishing a emergency response mechanism for public emergencies. Most of the world of sudden public events implements hierarchical response mechanism, according to the public emergency response level, the lower government to government resources and emergency handling requirements, the lower government responsible for higher government, at the same time, the higher government in charge of the department and the lower government in charge of the department, there are subordinate business guidance relationship.

5.1.2 Public Welfare Organizations.

Civil public welfare organizations accept donations of property from the public during public emergencies, and use the donated property for the emergency and handling of public emergencies. There is a entrustment relationship with the government. On the one hand, civil public welfare organizations will receive donations from the public to the relevant government departments for use; on the one hand, the department in charge of the responsible part of the property to the public welfare organizations under special circumstances. In this part of the relationship, public welfare organizations and government departments are responsible for each other.

5.1.3 The Public.

The social public includes the social public directly affected in public emergencies and the unaffected donors. In the process of sudden occurrence of public events, part of the public will directly participate in the handling of sudden public events and promote the solution of sudden public events. Donors will donate the materials and funds directly to the affected public, or to the government departments or social welfare organizations, which will distribute the materials.

In the various relationships between the government and its responsible departments, public welfare organizations and the public, there are agents and principals. Between the governments at all levels and the departments in charge, The government is the client, The department in charge is the agent; Between a higher government and a lower government, The higher government is the client, Lower governments are agents; Between the government and its responsible departments and the public welfare organizations, Different situations are mutual principals and agents; Between donors and public welfare organizations, governments and their departments, The donor is the client, Public welfare organizations, governments and their departments are agents; Between the government and their respective departments, public welfare organizations, donors and the affected public, The government and their respective departments, public welfare organizations and donors are the clients, The affected public is the agent, In this principal-agent relationship, The government and its departments shall adopt various emergency measures, Distribution of disaster relief materials, Post-disaster recovery, Public welfare organizations and donors to distribute property to those affecting public emergencies, The affected public should deal with public emergencies in an orderly manner in accordance with the regulations, Use of property as required, This is a special liability relationship.

5.2 The Management System of the State Audit

In the world, the national audit management system mainly has four modes: legislative, judicial, administrative and independent. Under the legislative model, audit institutions are subordinate to the legislative department, and the audit system is a tool for the legislative department to supervise and investigate. This model is mainly in countries with the political system of separation of powers, such as Britain and the United States. Under the judicial model, audit institutions belong to the judicial series and have certain judicial authority, mainly in the western European continent and some countries in South America. Under the administrative model, audit institutions belong to the national administrative series and are part of the national administrative organs, such as China and Sweden. Under the independent model, audit institutions are not subordinate to any power department, and are an independent supervisory body, such as Germany and Japan.

Although different audit management systems in different countries, the objectives and function mechanism of national audit participation in the prevention and control of public emergencies are the same, which are the special embodiment of national audit service in the special period. For example, between 1997 and 2014, the Agency conducted six large-scale earthquake disaster prevention audits. In 2001.2007.2011 and 2014, the UK Audit Office carried out flood management audits for four times, conducting special audits on the responsibility subjects of flood risk management, flood risk management strategies, funding sources of flood risk management, and the implementation of flood control measures. The National Audit Office of China paid attention to the audit of the use of emergency supplies and the follow-up of post-disaster policies. In 2003, it conducted a special audit of SARS special funds and social donations. in 2008, it conducted a follow-up audit on the collection, allocation, allocation, use and management of funds and materials for disaster relief from the Wenchuan earthquake. COVID-19 outbreak in 2020, many countries have carried out the response to COVID-19 outbreak special audit, Italian national audit court through audit, points out that COVID-19 outbreak cause medical system paralysis, exposed the national public health system infrastructure construction, medical technology level and the shortage of medical staff, Suggestions to strengthen emergency medical supplies reserves[22].

5.3 The Characteristics and Functions of the National Audit for Public Emergencies

5.3.1 Characteristics of National Audit of Public Emergencies.

According to the principal-agent theory, due to the unreasonable use of resources or "self-enrichment" by agents, there is often a "suboptimal" situation. At this time, the audit department needs to supervise the allocation of resources and the performance of various departments. National audit is characterized by independence, comprehensiveness and criticism in the handling of public emergencies.

First, independence. The state audit department is a full-time institution authorized by the state, and the audit authority is statutory[23]. It examines and supervises the authenticity, correctness, compliance and efficiency of the relevant activities, and has legal effect. Public emergencies, audit institutions and auditors do not participate in the specific policy formulation and implementation of, and the auditees between independence, from the objective and fair position to collect audit evidence, in accordance with certain standards and principles, to evaluate the audit evidence, independently exercise the audit supervision, check the truth, tell the truth, the truth, free from external interference, to ensure the authority of the audit results.

Second, comprehensiveness. From the perspective of the timing of audit intervention, national audit can be integrated into the whole process and all links of handling public emergencies, including prevention and emergency preparation in advance, emergency response and disposal in the event, and post-handling and improvement. From the perspective of audit objects, the problem of national audit verification can go vertically from the top of policy formulation and fund arrangement to the end of implementation and use, and it can horizontally cover departments and individuals performing different responsibilities, and the audit objects cover a number of fields. From the perspective of audit content, it can analyze and summarize specific problems from local perspective, and analyze the system, mechanism and system level, it can timely respond to the information demand of emergency response, reveal institutional defects and omissions, and timely report valuable information, and conduct long-term tracking and evaluation of relevant policy implementation and fund use performance.

Third, criticalness. National audit using its professional and technical advantages, the relevant units to carry out the relevant prevention and control measures of supervision and evaluation, the public emergency prevention and control of financial funds and donated money allocated, management, distribution, use of authenticity, legitimacy and efficiency of supervision and evaluation, the public emergency management system, mechanism and system of audit supervision and evaluation, critically pointed out the problem, constructive Suggestions and Suggestions, can give full play to the role of the audit.

5.3.2 The Function of National Audit for Sudden Public Events.

The theory of "immune system" holds that the national audit has three major functions: prevention, disclosure and defense. In the response to public emergencies, the state audit focuses on the government's performance of duties, the implementation of assistance and support policies, and the management and use of financial funds and donated money and goods, which also has the functions of prevention, disclosure and resistance.

First, prevention function. Emergency public events focus on early detection, early warning, early warning, early intervention, national audit can also be "mark" forward, give full play to the national audit independent objective, professional precision, information, rapid response, warning preparation of major public emergency audit, focusing system audit, focus on public emergency response laws and regulations, organization system is complete, assessment of the public emergency contingency plan is scientific, reasonable and effective, whether to verify the emergency reserves are sufficient, and to predict public emergency response risk, enhance the public emergency advance warning response work is scientific.

Second, reveal functions. The basic duty of audit is supervision, supervision must reveal the problem, check the wrong and correct the wrong. In emergency response and disposal stage, with emphasis on the compliance audit, around the public emergency in the capital allocation, medical treatment, material support, transportation, market supervision, prevention and control started in key areas, reveal the emergency response is not timely, information communication is not smooth, material occupy, intercept, and abuse and practice favoritism. In post-disaster recovery and reconstruction stage, focusing on the performance audit, around the recovery and reconstruction materials and fund raising, distribution and management, tax breaks, state subsidies, loan preferential policy implementation, reconstruction project construction progress and construction recovery quality, reveal major policy implementation does not reach the designated position, capital, poor project efficiency, play to the role of audit supervision timely intervention and correction.

Third, affordable function. Defense function is a higher requirement above the audit disclosure function. On the one hand, we need to solve problems between institutional mechanisms and institutional levels. National audit is not only to reveal the audit found personality problems, more from the macro level to understand and analyze problems, from promoting the reform system, improve the rule of law, perfecting the system, standard mechanism, strengthen management, risk prevention level put forward opinions and Suggestions, promote the fundamental solution, such as the crisis prevention and control mechanism, emergency response mechanism, material reserve mechanism, emergency management mechanism and information disclosure mechanism design and execution effectiveness of inspection and evaluation, improve the ability of emergency disposal of major public health events. On the other hand, it is to promote the problem rectification. Audit should not only expose the problems, but also promote the rectification of the problems, so as to urge the audited units to rectify the problems found in the audit. Through the audit and rectification, the losses can be recovered and prevent similar problems from happening again.

6 The Realization Path of the National Audit of Public Emergencies

6.1 Improve the Audit Mechanism and Establish a National Audit Management System for Public Emergencies.

Public emergencies have the characteristics of sudden, public, serious and wide influence. The national audit has the advantages of strong professionalism, many information channels and wide scope of supervision. Combined with the characteristics of public emergencies and the advantages of national audit, the audit mechanism should be improved and the national audit management system for public emergencies is established. First, establish a regular audit supervision mechanism. From the institutional level, improve audit laws and systems, and carry out regular audit supervision of sudden public events. Second, the establishment of the public emergency audit operation mechanism. Public emergencies have sudden, public emergency audit also need to timely response, so to develop scientific, systematic audit plan, the public emergency audit time of audit time, audit mode, organization mode, audit process, evaluation standard, audit report content specification, establish public emergency audit operation mechanism, ensure timely response. Third, establish an inter-departmental information communication mechanism. Audit institutions should strengthen communication and cooperation with emergency management, finance, taxation, public security, charity organizations and other departments, establish information communication, communication and feedback mechanism[24], ensure the full sharing of information and data of public emergencies, rapid feedback, and improve audit efficiency.

6.2 Expand the Audit Content, and Carry out the Whole Process of Tracking the Audit of Public Emergencies

Public emergency audit should run through the whole process of public emergency emergency handling, according to the type of public emergency, stage, characteristics, damage degree, factors such as scope, in prevention and emergency preparedness, emergency disposal and rescue, recovery and reconstruction in different stages, the public emergency handling comprehensive supervision. Based on the characteristics of public emergencies, we will explore and build a three-dimensional audit mode of "normal audit + special audit + tracking audit". In the prevention and emergency preparedness stage, routine audit and special audit can be conducted and emergency audit and followed in the recovery and reconstruction stage. In terms of key audit, pay attention to crisis prevention audit to strengthen the audit of strategy, system, mechanism, policy, management, promote the establishment and improvement of major risk emergency prevention and control mechanism; pay attention to performance audit, pay attention to policy and project performance, promote information disclosure and transmission, and ensure the real, legal and effective use of materials and funds[25].

6.3 Innovate the Audit Methods, and Use the Big Data Technology to Improve the Audit Ability and Efficiency of Public Emergencies

In the audit of public emergencies, the external environment is complex and diverse, and the public pays close attention to the response and management of emergency public events and the allocation, allocation and use of funds and materials. The audit of public emergencies needs to deal with no longer isolated data limited to a certain unit or department, a certain link or a certain business. It needs to analyze various channels and forms of data[26], and the use of big data technology can improve the audit ability and work efficiency of public emergencies. First, the establishment of an audit database. Through network collection, data backup and other methods, establish a regular data collection and reporting mechanism with emergency management, health, public security, charity and other public emergency management departments to collect relevant business and financial data, and integrate cross-department, cross-level and cross-regional data. Second, to strengthen data analysis. The integration of the large amounts of collected data and data mining is the core of big data audit. By establishing a data model, the audit task is combined with the business data, and the correlation between the data is deeply mined. Big data technologies such as machine learning algorithms and other big data technologies are used to carry out mining and analysis, and improve the ability to find, analyze and analyze the clues of policy implementation, fund management and use, and violations of discipline and law. Third, to carry out remote audit. Public emergency audit time effectiveness requirement is high, to dataAnalysis on the basis, carry out the remote audit based on big data, off-site data analysis results can directly form the audit conclusion, timely to the relevant departments and promote the rectification, the analysis results not directly as the audit conclusion, targeted to carry out extended verification, shorten the site audit time, improve the audit efficiency.

6.4 Strengthen the Application of Audit Results, and Give Full Play to the Role of State Audit for Public Emergencies

The application of audit results is the final embodiment of audit value and the key link to improve the effectiveness of audit. It is of great significance for improving the audit status and authority and promoting the emergency handling of public emergencies. First, to strengthen the analysis of audit results. In view of the problems found in the audit, the risk points and management loopholes are deeply revealed, the causes of the problems are deeply explored, and suggestions are put forward from the level of system and mechanism, promoting the audited units to establish rules and regulations, improve the system construction and internal control process. The audit situation shall be reported to the auditee and the competent departments, and the violations of discipline, laws and regulations investigated and dealt with shall be transferred to the relevant departments for handling. Second, we will urge the audit to rectify problems. The main responsibility of the auditee for the rectification and the supervision and management responsibility of the competent department shall be clarified to implement dynamic management of the problems found in the audit, and the audit institutions shall urge the relevant units and departments to make rectification in time. In the audit work, the rectification of the problems found in the preliminary audit will be taken as an important part of the audit to promote the implementation of the rectification work. Third, we will make auditing public. The disclosure of audit results not only guarantees the publics right to know, correctly guides the public opinion, but also makes the audit supervision, social supervision and public opinion supervision play a joint role, promote the government functional departments to perform their duties well, and improve their ability to respond to public emergencies. Therefore, the audit results and the rectification situation should be made public in a timely and comprehensive manner to respond to social concerns. The contents of the audit announcement should be comprehensive, objective, true and accurate, both by objectively evaluating the results of the measures taken by the audited units and disclosing the problems found in the audit; by reflecting both the rectification results and the rectification results of the audited units.

7 The Conclusion

Emergency management is an important part of the national governance system and governance capacity. In the face of public emergencies, the government timely starts emergency management, including all-round and whole-process management from prevention and emergency preparedness, monitoring and early warning, emergency response and rescue to post-recovery and reconstruction. As an important part of the supervision system, the audit independently supervises the evaluation and accountability emergency implementation system in accordance with the law, which is a special embodiment of serving the national governance. By carrying out the audit of public emergencies, the audit conclusions are published on the authenticity, legality and efficiency of financial funds, donated money and goods and the government's responsibilities, so as to prevent the emergence of ineffective government's accountability and corruption, reveal potential risks and put forward targeted suggestions for resolution. From the United States to carry out the practice of public emergencies can be seen that public emergency audit is different from regular audit, more emphasis on improving the government disposal of emergencies and public security ability, need to maintain national security as the top task of audit, control risk, reduce loss waste, improve people's livelihood, protect the environment, investigate the audit found major illegal problems, promote the construction of anti-corruption, further promote the perfect system, a sound system. To do the national audit of public emergencies, it is necessary to establish and improve the national audit management system of public emergencies, pay attention to expanding the audit content and implement comprehensive supervision over the handling of public emergencies; pay attention to the use of big data technology to improve audit ability and work efficiency; pay attention to the application of audit results, and enhance audit status and authority.

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