

# The operation and improvement of the emergency service mechanism of the grassroots government from the perspective of agile governance

—— Take the 12.18 earthquake in Jishishan County, Gansu Province as an example

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**Abstract:** Grass-roots emergency service is an important content of emergency management. Its service level directly affects the people's sense of security, sense of gain and happiness. Based on the related theories of agile governance and collaborative governance, draws on the excellent research results at home and abroad, this paper establishes the operation mechanism of the grassroots emergency service, adopts the method of semi-structured interview code, analyzes the interview content, and discusses the emergency service of the grassroots government of Jishishan County. Then, this paper puts forward the emergency service improvement strategies of updating the service concept, combining agile governance with collaborative governance, embedding data in the governance process, and cultivating and improving the agile governance ability.

**Keywords:** Emergency Service Level; Supply and Demand Balance; Operation Mechanism; Agile Governance and Improvement Strategy

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## 1. Foreword

Natural disasters, public health and other emergencies pose threats to social stability and people's safety. In the early morning of December 18, 2023, a 6.2-magnitude earthquake occurred in Jishi County. After the earthquake, the CPC Central Committee and the State Council raising the earthquake emergency response to Grade 2. The government set up an earthquake relief headquarters to gather all forces to carry out earthquake relief. In this process, the grassroots government adopts the central led "top-down" emergency service model; but the "last kilometer" of social governance is also the "first kilometer" of emergency response, and the complexity and unpredictability of post-disaster situation require it to assume more social responsibility.

## 2. literature review

### 2.1 Overview of emergency public services

The National General Emergency Plan for Public Emergencies defines a public event as an emergency that occurs suddenly, causes or may cause heavy casualties, property losses, ecological environment damage and serious social harm, and endangers public security.

Service-oriented government and modern social assistance system overlap in the basic concept of human rights protection or people-oriented. In the face of emergency public crisis, the government is undoubtedly a powerful leader in providing emergency public services. It is necessary to actively introduce social forces to participate in cooperation to optimize the supply of emergency rescue services and reduce the gap between supply and demand.

### 2.2 Theoretical review

#### 2.2.1 Agile governance theory

WEF defines agile governance as an action and approach with flexibility, mobility, flexibility, and adaptability, as an adaptive, person-centered, and inclusive and sustainable decision-making process.

In the field of emergency management, agile governance is considered as the ideal type of risk prevention and control. Under the sudden public events, the policy path, risk benefit and public confidence are all changing, challenging the pace of traditional government

governance policies and the applicability of rule operation. The advantages of agile governance are reflected in the three aspects of peacetime and wartime transformation, data application and collaborative governance. Professor Yu Wenxuan likened agile governance to a running elephant, and put forward a governance framework including ten elements.

### 2.2.2 Theory of collaborative governance

In the process of collaborative governance, the mutual coordination and cooperation between the subjects have the characteristics of consistency, effectiveness, order, dynamics and matching. Multi-center collaborative governance requires the establishment of a vertical, horizontal or horizontal combination and highly flexible collaborative organization network.

## 3. Operation mechanism of grassroots emergency services

Agile ideas do not automatically translate into agile capabilities, and the agility of governance depends on agile providers such as organizations and personnel. In this process, different subjects in the organization need to participate in coordination and communicate reasonably, so that resources, information, rights and responsibilities operate in a horizontal and vertical way.

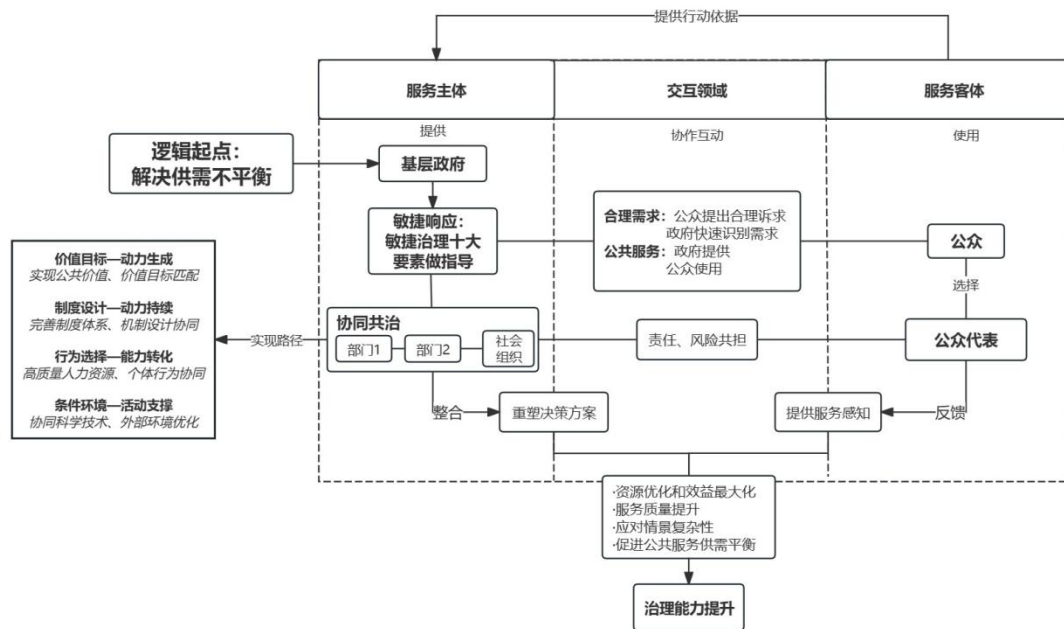


Figure 1 Operation mechanism of grassroots emergency service

## 4. Analysis of the operation and improvement of jishishan earthquake basic emergency service mechanism

### 4.1 Analysis of the current situation

Based on the grass-roots emergency service operation mechanism, into the site and government departments, adopt the half structured interview research method, from the three levels of the grassroots government, the affected people and social organizations, and the interview content of the emergency service in the axial coding analysis, finally summarizes the peacetime transformation, system specification, multi-subject coordination, technology fu, supply and demand perception, reconstruction dilemma, predict the trend of seven core categories.

#### 4.1.1 peacetime state, quick conversion

The conversion of peacetime to wartime is of great significance for the response to emergencies. After the earthquake, the local emergency management bureau responded quickly and immediately launched the emergency response mechanism, according to the actual needs of the disaster area, quickly coordinated the emergency rescue force, and launched the central enterprise emergency coordination mechanism... also launched the military rescue and disaster relief coordination mechanism, aviation rescue coordination mechanism.

#### *4.1.2 Rapid response and institutional norms*

In the earthquake rescue, recovery and reconstruction, emergency services show the characteristics of rapid response and standardized norms. The timely and effective search and rescue and resettlement greatly reduces the injury degree of the earthquake, All activities need to open the application letter and then approved by the emergency headquarters; the supervision and inspection team implemented whole-process and comprehensive supervision to ensure the standard and efficient operation of earthquake relief.

#### *4.1.3 Multi-agent collaborative force*

The rescue and reconstruction work in the government, enterprises, social organizations, etc, the central government is responsible for overall coordination, public security, fire control, health and other different departments between mutual coordination, professional rescue ability and grass-roots forces coordination, grassroots with itself as the carrier, through the government services, contact the victims last kilometer, launched the “1 + 3 + N” grid emergency disposal mechanism, mobilize the county grass-roots party organizations and party members for earthquake relief.

#### *4.1.4 Technology Empowerment and resource assurance*

The application of advanced technical means in emergency management can greatly improve the accuracy of early warning, response speed, rescue efficiency and post-disaster recovery ability. Our technicians use drones, 3D laser scanner and other equipment to carry out comprehensive investigation and judgment of secondary geological disasters, find potential risks in advance, and provide scientific basis for decision-making.

#### *4.1.5 Reasonable demand and service perception*

In an emergency, the masses have basic needs for security, rescue services, life support and other aspects. Linxia Prefecture meets the reasonable needs of the masses in providing emergency services. Their daily life such as water and electricity has been guaranteed, there is no problem in food, clothing, housing and transportation, and there is no problem in medical care.

#### *4.1.6 Post-disaster reconstruction and conflicts*

Post-earthquake reconstruction is a complex and arduous task, involving numerous social, economic, cultural and environmental factors. In the process, there was a conflict between the reconstruction of the original site and the centralized resettlement. Now the grass-roots government needs to mobilize people to choose the centralized resettlement, but now most people are wait-and-see for this matter. For the affected people, their home is not only a physical space, but also a space carrying the culture and memory passed down from generation to generation.

#### *4.1.7 Forecast the development trend*

The prediction of the development trend is of great significance for improving the disaster prevention and mitigation ability of the local residents. However, the current prediction ability of Jishishan County is still lacking, the disaster area lacks enough emergency shelter, a large number of people in the disaster area are in the outdoor risk, lack of emergency shelter and emergency supplies reserve, which is not conducive to rescue and material deployment.

## **4.2 Improve the strategy of grassroots emergency services**

China has accumulated a lot of experience in the emergency management after natural disasters, but the work at the emergency service level still needs to continue to be enriched and improved. Based on the experience summary of the grassroots emergency service after the Jishishan earthquake, the following improvement strategies are put forward.

#### *4.2.1 Update the service concept*

At present, the theory of agile governance has gradually become an important theory to deal with major public emergencies. It is necessary to change the original passive and inertial governance thinking, strengthen the responsibility and mission of establishing active agility, establish the organizational culture of agile governance, and internalize agile perception in mind and externalize it in the action.

#### *4.2.2 Combine the agile governance concept with the collaborative governance concept*

Under the mechanism of agile response, it is necessary for all subjects to participate in the coordination and share the responsibility

risks. The path to realize collaborative co-governance mainly depends on four aspects: value goal, system design, behavior choice and conditional environment.

#### *4.2.3 Technology support, data embedded in the whole process of governance*

The application of modern information technology can effectively help the government to perceive the real needs of the public. For example, after the earthquake, modern information technologies such as big data, cloud computing, artificial intelligence and the Internet were used to help the government obtain the general demands of the victims and statistics on the situation of the disaster, orderly allocate relief materials and monitor the environment of the affected areas, greatly improving the service quality and efficiency of the government.

#### *4.2.4 Cultivate the construction of agile governance capacity*

The first is to improve the ability to transform quickly in peacetime and wartime. In daily management, the government adopts regular emergency management characterized by “block”; abnormal emergency management characterized by unified leadership and comprehensive coordination must be adopted.

The second is to enhance the ability to coordinate resources. Government organizations play a leading role in responding to major public emergencies and carrying out agile governance. Using the functions and powers entrusted by the state, they can quickly obtain various information and effectively allocate resources from all aspects.

The third is the ability to predict developmental trends. The government makes use of the ability to fully obtain various information, and accurately predict the changing trend of public demand according to the changes in the overall environment and the past experience of the same type of public emergencies, so as to prepare the corresponding supply resources in advance.

## **5. Summary and reflection**

This study conducted field research in Jishishan County, Linxia Prefecture, interviewed the grass-roots government, social organizations and the masses, summarized the means and methods of grass-roots emergency services for responding to major natural disasters in China, and extracted the experience for reference. Research found that the government at the grassroots level can in the disaster first quickly identify and quickly reflect the emergency needs of the masses, and emergency supplies are adequate, can meet the survival needs of the victims, but there are still part of the public service supply and demand mismatch, such as post-disaster reconstruction phase site reconstruction and the contradiction, victims of the future of post-disaster reconstruction, etc. Due to the confidentiality of some government documents and data, no relevant materials were obtained in the interview, which reduced the richness and completeness of the research results.

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