

Operational Mechanism of Emergency Volunteer Services by Social Organizations in Public Emergencies: Taking the Blue Sky Rescue Team as an example

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Abstract: In responding to various public emergencies, emergency volunteer services provided by social organizations have become a crucial supplement to emergency systems, effectively addressing shortcomings in the official rescue forces' coverage and manpower allocation. They play a key role in building a diversified and collaborative emergency response framework. Taking the Blue Sky Rescue Team as a case study, this paper examines its emergency service processes and organizational models in disaster relief and epidemic control scenarios, analyzes its operational characteristics—including emergency response, personnel dispatch, resource coordination, and inter-agency collaboration—and identifies current challenges such as insufficient funding, inadequate personnel management, and uneven professional capabilities. Based on the requirements for modernizing grassroots emergency management, the paper proposes feasible strategies to optimize operational mechanisms, strengthen multi-party collaboration, and improve support systems, offering practical references and insights for the standardized and sustainable development of similar civilian emergency volunteer organizations in China.

Keywords: Social Organizations; Emergency Volunteering; Multi-Party Collaboration; Collaborative Governance

1. Introduction

Currently, various public emergencies—including floods, earthquakes, extreme weather events, and public health incidents—are occurring frequently, with the complexity and uncertainty of incident response continuously increasing. The traditional emergency system mostly relies on the government and the professional team within the system, which has a

strong official attribute. While receiving official support, there are also obvious limitations in personnel replenishment, scope coverage, mobile response and refined services due to limitations in personnel size, jurisdiction and response mode. In this situation, various civil emergency volunteer service social organizations emerge as the times require.

With their unique advantages such as flexible response and close to the masses, which are different from official organizations, they have gradually become an indispensable and important supplement to the construction of emergency management system[1]. The Blue Sky Rescue Team is a pure public welfare folk rescue organization with great influence in China. It not only sets up local teams in various provinces and cities across the country, but also all its members are social volunteers who do not pay and participate voluntarily. All its members are unpaid volunteers who actively participate voluntarily, consistently engaging in mountain search and rescue, water rescues, disaster relief, epidemic control, safety duty shifts, and disaster prevention and mitigation education. The team regularly deploys to emergency sites across the country, serving as a typical representative of civilian emergency forces[2]. Against this backdrop, this paper takes the Blue Sky Rescue Team as a specific case study to systematically examine the overall operational model of its emergency volunteer services.

2. Literature Review and Commentary

Against the backdrop of modernizing China's emergency management system, civilian professional volunteer rescue organizations such as Blue Sky Rescue Team have become a crucial supplement in responding to emergencies. Domestic academic circles have produced rich research outcomes on the operational mechanisms of emergency volunteer services, covering multiple dimensions including value

orientation, internal governance, government-society collaboration, and resource support.

In the study of organizational values and overall positioning, Pu[3] and Du[4], grounded in multi-center governance theory, clarified that civilian rescue forces can cover the entire chain—from pre-disaster public education to in-disaster search and rescue and post-disaster relief—making up for the insufficient grassroots deployment of official rescue teams. Zhu[5] focused on the characteristics of professional volunteer rescue, arguing that professionalism is the core distinction between Blue Sky and ordinary volunteer services, with systematic skill training and certification-based staffing as the foundation enabling it to undertake high-risk missions such as water, mountain, and earthquake rescues, thereby clarifying the boundaries and key development priorities of professional emergency volunteer services. Regarding internal operational mechanisms, Xing[6] summarized Blue Sky's organizational structure characterized by “headquarters setting standards + local teams operating independently,” while Cui and Li[7] systematized the tiered training and entry assessment framework for team members. Zhang[8], from a network organization perspective, analyzed Blue Sky's inter-regional joint response model, explaining the operational logic behind nationwide coordination and dispatch of local units, thus enriching research on networked operations in civilian rescue. Government-society collaboration has become a central focus in current studies. Zhao and Huang[9], based on co-governance frameworks, conducted quantitative analysis on the conditions enabling collaboration between social organizations and government during emergencies, emphasizing that institutional frameworks are crucial for breaking down information barriers. Du[10] put forward the idea of integrating social organizations into local emergency response as a local emergency plan, and deeply analyzed its practical path; Wang et al.[11] innovatively put forward the view of combining crisis management theory with collaborative governance in the article. They believe that the disposal of emergency actions and the exchange of experience can continuously promote the optimization of the collaborative efficiency of government and society, which greatly enriches the dynamic research perspective of collaborative governance. Guo[12]

adopted the research method of bibliometrics to confirm that the current academic research has shifted from the discussion of the necessity of cooperation to the institutionalized landing path, and concluded that the joint exercise normalization and the power and responsibility list system are divided into mainstream optimization schemes. In terms of resource security and sustainable construction, the existing literature research generally points out that the blue sky rescue team's callable funds are highly dependent on their own financing and social donations. For this dilemma, Zhao[13] and Lai[14] advocated broadening the financing channels of private voluntary service organizations through government purchase of services and the establishment of special public welfare funds. Jia[15] also proposed that the combination of honor incentive and rescue insurance should be used to make up for the existing financial difficulties and stabilize the civil volunteer team.

To sum up, the existing literature has generally recognized the supplementary role of civil emergency voluntary organizations in the social emergency management system, and also summed up the bottlenecks faced by the development of such organizations. However, when discussing non-governmental organizations such as the Blue Sky Rescue Team, most of the existing studies only make a holistic description, and seldom go deep into the specific operational levels such as emergency response, personnel scheduling and resource coordination, and the proposed countermeasures are also macro. This paper chooses the Blue Sky Rescue Team as a specific case, focusing on how its emergency volunteer service actually operates and what difficulties it faces, and then puts forward suggestions for improvement. It can not only supplement the shortcomings of existing research at the micro level, but also provide practical reference for the standardization and long-term effectiveness of similar civil emergency voluntary organizations.

3. Basic Organization Overview

Blue Sky Rescue Team is a nonprofit civilian professional emergency rescue organization that has developed within China. It was officially founded in Beijing in 2007, with the original purpose of filling gaps in public emergency services by relying on volunteers to provide free rescue and assistance. As an independent

nonprofit, the team operates with autonomy and a public service orientation, and has no profit motive. All rescue operations and volunteer services are free of charge to those in need, and all members are volunteers from various backgrounds who give their time and skills without compensation. Since then, Blue Sky Rescue Team has expanded across provinces, cities, counties, and districts nationwide, setting up local branches and service stations to build a countrywide network. The organization now has a large registered volunteer base and has trained many certified rescue personnel with specialized qualifications. It adheres to the volunteer spirit of “humanity, compassion, and dedication,” and its work centers on protecting lives, emergency rescue, disaster prevention and mitigation, and serving society. The team is committed to building a professional and standardized civilian emergency response force and works closely with emergency management authorities at all levels in responding to emergencies[16].

Since its founding, Blue Sky Rescue Team has taken part in many major public emergencies in China, accumulating practical experience and providing services across different disaster types and emergency situations. During flood rescue operations, when floods affect multiple river basins or urban areas, local teams across the country quickly assemble and coordinate across regions to evacuate trapped residents, deliver essential supplies, patrol levees, and assist with drainage and hazard removal—acting as an important supplementary force on the front lines of flood control and relief. For earthquake rescue, whenever an earthquake occurs in China, the team immediately activates emergency response

procedures and sends specialized personnel to the affected areas to help fire departments and emergency agencies with search and rescue in rubble, evacuation of the injured, and temporary shelter support. During regional pandemic prevention and control volunteer services, Blue Sky Rescue Teams have proactively taken on grassroots-level epidemic control tasks, manning traffic checkpoints and residential buildings to complete duties such as resident information registration, maintaining orderly nucleic acid testing queues, distributing protective supplies, and disinfecting high-risk zones, continuously strengthening the public health safety defenses at the community level. These diverse operational cases clearly demonstrate the organization’s rapid response capability, flexibility, and close connection to grassroots communities, underscoring the significant role played by civilian emergency volunteer organizations in managing sudden public crises[17].

4. Analysis of the Operational Mechanism of Blue Sky Rescue Team's Emergency Volunteer Services

Through long-term involvement in handling various public emergencies, the Blue Sky Rescue Team has gradually established a relatively complete emergency volunteer service operation system tailored to the characteristics of civilian volunteer rescue. This chapter provides a systematic analysis of its core operational mechanisms from four dimensions: emergency response, personnel management, resource support, and internal-external coordination. (See Figure 1)

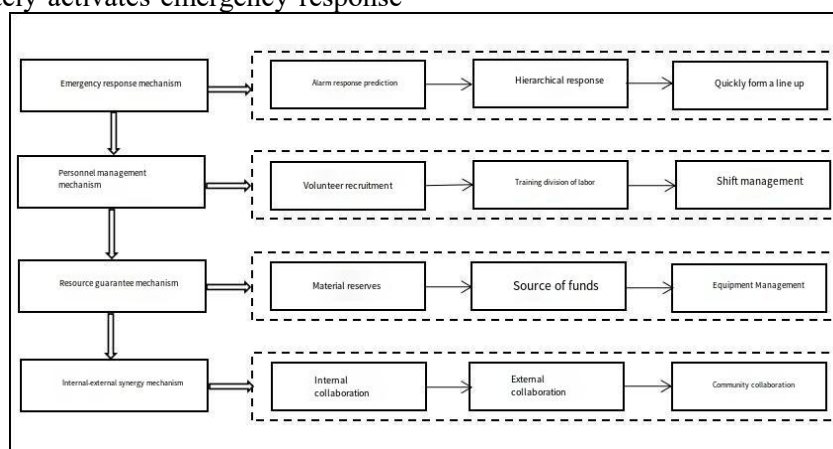


Figure 1. Operation Mechanism of Blue Sky Rescue Team

4.1 Emergency Response Mechanism

The emergency response process of the Blue Sky

Rescue Team has been relatively fixed, basically in accordance with the three links of early warning, hierarchical response and rapid

departure. In the stage of early warning, common rescue demands are mainly entered through national unified contact channels, local helplines and government platforms. Subsequently, the full-time command personnel will make judgments based on information such as the type of police situation, the location of the incident, the level of danger, and the situation of personnel trapped, and initially determine the difficulty of the task and the strength that needs to be mobilized. After entering the hierarchical response link, the team sets different response levels according to the degree of danger and the scope of the danger: the minor danger is handled independently by the local unit, and the major disaster or cross-regional danger starts the all-round linkage to coordinate the surrounding and even the national unit to support. In the stage of rapid departure, after prejudging the results and orders, the team notifies the on-the-job team members according to the principle of proximity, clarifies the time and task requirements, and strives to reach the scene in the shortest time to start rescue.

4.2 Personnel Management Mechanism

The service of the Blue Sky Rescue Team is mainly completed by volunteers in the team. In terms of personnel management and daily operation, a set of practices has been formed from recruitment, training to division of labor and duty. The recruitment process is open to the public, and preliminary screening is carried out in combination with factors such as physical fitness, occupation and free time. Priority is given to personnel with professional skills such as medical care, communication, driving, and outdoor operations.

The training adopts a hierarchical classification method. New members first learn general courses such as emergency common sense, basic rescue and safety norms. If they want to participate in special rescue later, they also need to participate in corresponding skills training. After the assessment is passed, they can formally perform the task. During the mission, the team will arrange the positions according to the rescue needs, divide the members into different groups according to the different daily main tasks, and clarify the responsibilities of each group. The daily operation of the rescue team is based on the rotation method. According to the actual situation, the team members are reasonably arranged to participate in the duty, patrol,

propaganda and emergency duty, so that the volunteers can take into account the volunteer work and personal life as much as possible, so as to maintain the normal operation of the team.

4.3 Resource Assurance Mechanism

In terms of resource support, the Blue Sky Rescue Team, like other non-governmental rescue organizations, has a range of resources covering three aspects: materials, funds and equipment. In terms of material support, the warehouses of each unit will always have food, protective equipment and anti-killing materials. In the event of major emergencies, they will temporarily raise part of the public welfare institutions, caring enterprises and social masses to supplement the needs of the site. The source of funds for the rescue team has obvious folk characteristics, mainly relying on social welfare donations, donations from caring people and small public welfare project subsidies. The team itself does not carry out operational activities and does not charge any fees to the service objects. In terms of equipment management, professional equipment such as helmets, life-saving equipment, communication equipment and rescue vehicles are uniformly registered, and regular maintenance and use lists are established over a period of time. After the end of the mission, the inventory, maintenance and return are carried out in time to ensure the safety of the mission and prolong the service life of the materials and equipment.

4.4 Internal and External Coordination Mechanism

As a civil emergency force, the Blue Sky Rescue Team has always paid more attention to integrating into the official emergency system, and forming a relatively stable cooperative relationship with all aspects. Close information communication and experience sharing will be maintained among the teams, and unified arrangements will be followed in case of major dangers, so as to mobilize personnel, materials and technical equipment support across regions. In terms of external relations, the team has established a normalized docking with the public security, fire protection and emergency management departments, and actively cooperated with the official rescue work. At the rescue site, it obeys unified command and undertakes tasks such as search and rescue, transshipment and logistics assistance according

to official arrangements. At the same time, the rescue team will also cooperate with the local community, take advantage of the community authorities' familiarity with the personnel and site conditions, and carry out some pre-investigation, mass guidance and rehabilitation services related activities. This kind of cooperation between the government and the society can combine the advantages of all parties, make up for the lack of a single rescue force, and improve the overall efficiency of emergency response.

5. Major Issues in Project Implementation

5.1 Capital Supply Problem

As a pure public welfare rescue organization, the Blue Sky Rescue Team as a pure public welfare rescue organization, does not charge any fees to the recipients for all rescue services it provides. At present, the funds required for the operation of the project mainly come from the self-financing of the team members, social donations and a small amount of corporate sponsorship, and a diversified and institutionalized fund guarantee system has not yet been formed. From the perspective of social donation, its amount is highly dependent on the heat of public opinion, the exposure of disasters and the public's temporary goodwill. The inflow of funds fluctuates and it is difficult to establish stable expectations; at the government level, in addition to the occasional temporary supplies or small subsidies in major disasters, the normalized financial support and the government purchase service mechanism are basically absent, resulting in a long-term gap in daily operations and professional construction.

The funds' shortage directly affects the guarantee of basic expenses such as equipment renewal, training development, site use and traffic communication. It is worth noting that a large number of players need to bear the cost of training, fuel consumption and equipment maintenance, and some players' monthly personal input even accounts for half of their income. Over the years, personal financial resources have been used to subsidize public rescue, which not only kills individual enthusiasm, but also endangers the long-term survival of the team.

5.2 Team Building Problem

Most of the members of the Blue Sky Rescue

Team are part-time volunteers. They usually have their own work. They participate in training and rescue completely out of public enthusiasm and lack strict institutional constraints. In this way, personnel in and out of the more casual, because of work changes, moving or family reasons to leave a lot of cases, the team mobility, it is difficult to form a stable backbone. The frequent replacement of personnel not only increases the repetitive cost of training, management and coordination, but also makes the rescue experience and technical accumulation lost with the departure of the old team members, which is not conducive to the standardization of service mode and the inheritance of technical system.

There are similar problems in professional ability. Although the Blue Sky Rescue Team advocates 'professional rescue', the national unified and standardized training system has not really been established. In terms of pre-service training, on-the-job retraining, cross-regional joint exercises, and certification assessment of high-risk subjects, there are inconsistent implementation standards, insufficient training times, large differences in content depth, and different assessment requirements. The team members come from different industries, and the professional foundation gap is large. Some people only go through short-term introductory training to participate in high-risk tasks, and the overall professional level is uneven. In the waters, mountains, high altitude, collapse and other dangerous sites, lack of professional ability, weak safety awareness, protective equipment is not in place, these hidden dangers are superimposed together, in recent years has caused many players to sacrifice. These accidents show that the risk of professional short board is not a paper problem, but a real threat to life.

5.3 Collaborative Mechanism Problem

Daily collaboration also lacks norms. There is no uniform standard for the docking process between the government and the social rescue forces, and in many cases it is based on personal contact or temporary coordination. The scope of responsibilities of all parties in disaster prevention publicity, hidden danger inspection, emergency duty and other work has not been clearly defined by the system. Sometimes several parties are in charge, and sometimes no one is in charge. In some places, the positioning

of the Blue Sky Rescue Team is not clear enough. It lacks systematic policy support and business guidance, and it is not included in the overall layout of the local emergency system. In this way, the advantages of social rescue forces, such as flexibility, wide coverage at the grass-roots level and fast response speed, are restricted. The connection between the government and social forces is not smooth, which ultimately affects the actual effect of the whole emergency response.

5.4 Interest Protection Problem

Volunteers of the Blue Sky Rescue Team often participate in water search and rescue, mountain rescue, flood rescue and earthquake relief. These tasks are highly dangerous and may encounter life hazards or psychological trauma at any time. However, at present, the social security and wind prevention mechanisms for front-line volunteers are obviously lacking, which has become a prominent problem affecting the stability of the team and the willingness of the public to participate. However, the government has not yet established a unified insurance system specifically for rescue volunteers, and most of the team members can only purchase ordinary accident insurance on their own. This kind of insurance premium is high, the amount of coverage is limited, the scope of coverage is relatively narrow, and the 'active participation in high-risk rescue' is generally listed as a deductible clause. Once something happens, the claims process is often difficult. After a major accident, the blue sky rescue team in many places can only rely on social fund-raising, mutual help between teammates or family members to find a way to solve the medical and pension costs, lack of stable and reliable guarantee channels[18].

In addition to insurance issues, medical assistance, disability identification and legal aid and other related services are also basically in a blank state. After the team members were injured, disabled or even sacrificed because of rescue, it was difficult for them and their families to get enough compensation and care, and the worries remained. This situation not only directly threatens the personal safety and family stability of the team members, but also greatly affects the enthusiasm of the public to participate in public welfare rescue.

6. Countermeasures and Recommendations

for Optimizing the Operational Mechanism of Blue Sky Rescue Team's Emergency Volunteer Services

6.1 Broaden Funding Channels

To solve the funding problem, we can not rely on the self-financing of the team members and the sporadic donations of the society for a long time. We need to broaden the sources of funds. The blue sky rescue team can take the initiative to dock with the territorial emergency management and civil affairs departments, and strive to undertake the public service projects purchased by the government, so as to obtain relatively stable financial support. At the same time, the joint public welfare foundation can set up a special fund for emergency rescue to absorb the continuous investment of enterprises and social loving forces. On this basis, it is also necessary to standardize the process of fund use, regularly disclose revenue and expenditure to the public, and improve the transparency of fund management. With a stable source of funds, equipment procurement, daily operation and professional training[19] can be guaranteed for a long time.

6.2 Strengthen Professional Capacity Building

Different types of rescue have different requirements for skills. Waters, mountains, high altitudes, and demolition are different, and the training content should naturally be distinguished. The non-governmental rescue organizations should strengthen the qualification management, the selection of personnel should have clear standards, and there should be strict requirements for the team members who have not received the corresponding certificates. Daily exercises should be fixed. It is not enough to rely only on intermittent training. Practical experience needs to be increased through case review. Every time the task comes back, it is worth summarizing the experience. The organization can invite fire, medical and emergency professionals to conduct training from time to time to help team members recognize their own shortcomings and make up for the shortcomings of team members in terms of skills.

6.3 Optimizing the Collaborative Linkage Mechanism

The communication obstacles existing in the

current government social linkage need to be solved by institutionalized means. Relevant government departments and the Blue Sky Rescue Team should jointly promote the process norms of unified information transmission, task scheduling and on-site command, and at the same time clarify the functional boundaries and division of powers and responsibilities of both parties in emergency response in the form of systems to prevent overlapping tasks or management vacuum. On this basis, emergency management, fire protection and other departments can carry out joint duty and collaborative exercises with the Blue Sky Rescue Team, and substantively incorporate social rescue forces into the overall framework of the local emergency system, so as to make the connection of all aspects of emergency response smoother, thereby improving the overall operational efficiency[20].

6.4 Improve the Rights and Interests Protection System

The existing commercial insurance is difficult to cover high-risk rescue scenarios. The Blue Sky Rescue Team can unite government departments and insurance institutions to develop more targeted insurance projects and make substantial improvements in the scope of protection and compensation standards. At the same time, the preferential treatment, pension, medical assistance and other related supporting policies of emergency volunteers also need to be improved simultaneously. Psychological counseling and legal aid services should be included in the emergency security system. After these measures are put in place, the possibility of team members getting into trouble due to rescue injuries or sacrifices will be greatly reduced, and the centripetal force within the team and the public's trust in public welfare rescue will also increase.

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