

# Research on the promotion strategy of urban community resilience construction in the context of risk society

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**Abstract:** Since entering the risk society, community plays an irreplaceable role as a base and fortress in the risk prevention and control of emergencies, and the construction of community resilience has become a key task to promote the modernization of grass-roots risk management. Based on the logical framework of community resilience construction and the current situation of risk management in Urban communities in China, this paper tries to analyze the dilemmas existing in the construction of community physical resilience, governance resilience, institutional resilience and technological resilience. And putting forward the optimization strategy from the four aspects: construction of infrastructure and public space, diverse community of governance, risk management system and intelligent emergency level. In order to strengthen the redundancy and resilience of the community resilience, improve the level of risk prevention and control and risk management in communities, so as to promote the modernization of grass-roots governance system and governance ability.

**Keywords:** Risk society, community resilience, risk governance

## 1. Introduction

With the continuous acceleration of urbanization, "black swan", "gray rhino" and other public emergency risk events occur frequently, resulting in more and more obvious exposure of urban vulnerability. In particular, after the sudden outbreak of COVID-19 swept the world, many countries in the world have suffered a severe crisis test, and human society has irreversibly moved toward a risk society. In the face of highly uncertain and complex risk social environment, community has increasingly become the main position for the public to fight against social uncertainty risk events, and also as the foothold and cornerstone for the government to carry out comprehensive social governance and social risk prevention and control. How communities can effectively resist external risks and disasters, flexibly respond to social emergencies, quickly recover from adverse effects and maintain sustainable development has become one of the core links of future urban security construction. That is to say, it is a "big test" for community safety governance to continuously enhance the risk prevention and control ability of communities in emergencies, and it is also a new direction to optimize the grass-roots social risk prevention and control system and improve the modernization level of local government governance. Therefore, in the context of risk society, vigorously promoting the construction of community resilience, improving the level of community resilience, and enhancing the risk governance ability of the community have become forward-looking issues that the whole society needs to attach great importance to.

## 2. Logical analysis of community resilience construction in the context of risk society

Community governance based on "resilience" emphasizes on the basis of community joint action, pooling internal and external resources by giving full play to community initiative and initiative, enhancing public participation and absorbing external forces, so as to enhance community's resistance, resilience and adaptability to all kinds of public crisis events<sup>[1]</sup>. Community resilience is dynamic in uncertain risk factors and runs through the whole life cycle of a community. It can achieve sustainable development through guidance, innovative use of resources and self-organized learning of members. Generally speaking, the higher the resilience level of a community has, the stronger the community's ability to deal with risks and challenges will be, and it will be able to recover from the impact of

various uncertain risk events more quickly. However, from the current practice of risk management in urban communities in China, the theoretical guidance of community resilience construction is not localized enough, and its internal composition has not yet formed a unified understanding. Therefore, based on existing research and COVID-19 prevention and control practices in recent years, this paper attempts to analyze the internal logical framework suitable for resilience construction of urban communities in China based on the governance principles of autonomy and coordination, unity and particularity, urgency and gradualism.

### ***2.1. Resilience of community environment***

Community environment includes various natural resource elements, public space, infrastructure and other hardware conditions of the community, which directly affect the community's ability to deal with disaster risk and is an important factor determining the resilience of the community environment<sup>[2]</sup>. Community is the front line for the public to fight against social uncertainty risk events, and its emergency infrastructure construction plays an important role in effectively responding to sudden risk events, including risk monitoring and early warning platform facilities, community public health infrastructure and related prevention items. In the process of community planning and construction, necessary redundant space must be reserved in advance, such as disaster prevention space, emergency shelter and post-disaster reconstruction space. Especially now that our country has entered the normal stage of epidemic prevention and control, only by scientifically distributing the community's public emergency space, strengthening the maintenance and updating of emergency facilities and equipment, and rationally storing and coordinating emergency supplies can the community environment improve its resilience to risk shocks, so as to timely accommodate short-term and high-intensity public service demands when risk events occur.

### ***2.2. Resilience of community organization***

The organizational resilience of a community mainly refers to the redundancy of organizational force when a community deals with sudden risk events. In China's community organizational structure, there are multiple main forces, such as the government, volunteer associations, community committees, community residents and property companies. Under the effect of organizational resilience, communities can quickly mobilize and deploy various organizational forces to effectively respond to sudden risk events, instead of being helpless at the critical moment. That is to say, in the multi-subjects of community risk management, communities pay more attention to the interaction and linkage between various subjects, emphasize mutual cooperation and support, promote the formation of a three-way risk early warning mechanism led by the Party and linked by the government, communities and residents, and change the passive and single emergency response and disaster relief into active risk monitoring. On the basis of continuous strengthening of prevention, the joint management of normal and abnormal conditions is realized, and "Prepare for danger when there is no danger, respond to danger when there is danger" is realized, so as to nip in the bud.

### ***2.3. Resilience of community system***

Institutional resilience is reflected in the establishment of a sound and redundant emergency plan and related institutional system in the community. When sudden risk events occur, the community can quickly start the appropriate emergency system to ensure the coordinated operation of various systems, so as to quickly and effectively deal with the impact of various disaster risks<sup>[3]</sup>. The stronger the resilience of community system, the more guarantee and continuity of its system design reflect. At the executive level, the community can get the authorization of the superior department, make the decision to adapt to the environment independently, and can effectively communicate, feedback and adjust with the superior department, and correct the deviation in time. In addition, communities generate resilience through planning, collective action, innovation and learning, and driving the participation of their residents and becoming active actors in the development of community resilience. They develop and participate in the construction of community resources in various ways, creating a good foundation for the feasibility of various emergency systems.

### ***2.4. Resilience of community technology***

Under the blending influence of big data era and risk society, community resilience construction needs community intelligent governance system as technical support. Community technological

resilience is the use of Internet, big data, artificial intelligence and other information science and technology to achieve intelligent, informationalized and accurate community risk management. Building an intelligent governance system based on information science and technology can enhance the pertinence and effectiveness of community risk prevention and control and risk management. When the community's human and material resources are limited and the corresponding forces cannot achieve monitoring, information science and technology can carry out multi-angle, all-round and all-weather real-time intelligent, refined and continuous monitoring of the community, solve the humanistic factor defects brought by the traditional emergency monitoring, and effectively play the role of "safety eye" in the community<sup>[4]</sup>. At present, China has entered the stage of normalizing epidemic prevention and control, and relevant testing and monitoring technology products have been gradually improved. Some communities are using these products to effectively carry out testing and monitoring of epidemic prevention and control, greatly reducing the risk of community life.

### **3. The dilemma of urban community resilience construction in China**

Compared with the development of resilient communities in abroad, resilience construction of urban communities in China started late. In 2020, the concept of "sponge city" and "resilient city" was clearly put forward in the 14th Five-Year Plan, providing a new idea for improving the prevention and control ability of communities in response to sudden risk events. In recent years, the governance ability of urban communities in the face of major public emergencies is increasing, but overall community risk governance is still lack of resilience, and there are still many shortcomings in the construction of community resilience.

#### ***3.1. Physical dilemma: emergency infrastructure and redundant space is insufficient***

Community emergency infrastructure construction and redundant spatial layout are important support for community risk management ability. After the outbreak of COVID-19, there are great imbalances and differences in the construction of basic emergency facilities in communities across China, especially in some old communities, where the infrastructure is exposed to serious vulnerability and hysteresis. Many communities only focus on the prevention of natural disasters, accidents and other types of emergencies, but when it comes to the prevention of public health emergencies such as COVID-19, there is a shortage of epidemic prevention materials and a serious shortage of medical facilities and services. In addition, the vast majority of the community does not have the diversity of the function of mixed public redundant space, although some community activity room, district basketball court set as temporary emergency isolation points, alleviate the pressure isolation in a certain extent, but still can't meet the demand of epidemic prevention because of the lack of capacity, even increased the potential risk for the infection of community residents and the pressure of community prevention and control.

#### ***3.2. Governance dilemma: the main body of the administration and the weakness of the capacity is obvious***

Affected by China's "top-down" administrative system, community risk governance efficiency has also appeared a more serious tendency of administration. Taking epidemic prevention and control as an example, local governments habitually take charge of emergency management affairs at the grass-roots level, taking little account of the actual situation and differences of communities, forming a governance situation of "ordering from above and implementing from below". Under the double pressure of repetitive work and heavy administrative tasks, community workers have very limited actual decision-making power. Most of the time, they can only passively play the role of "executioner", which leads to their excessive dependence on superiors and weak autonomy. What is more noteworthy is that the vast majority of community management staff have not experienced or participated in handling major public emergencies and lack relevant governance experience, which leads to the lack of policy implementation ability, and the urgent need to improve crisis handling ability and comprehensive quality.

#### ***3.3. Institutional dilemma: the timeliness of community emergency management system is poor***

With the development of demonstration communities of disaster prevention and mitigation in China, communities have developed different emergency management systems. However, due to the

uncertainty of sudden public crisis events, communities are prone to expose the low adaptability of emergency plans in the process of dealing with risks. This is because the community level emergency management system in the template and homogeneity is obvious, some communities do not adjust measures to local conditions, pure copy the administrative ideas of superior departments, mechanically copying other community emergency plan, lead to poor practicability and efficiency of the plan content, on the supply of emergency management system is lagging, unreasonable, etc. These problems give rise to the frequent occurrence of "one-size-fits-all" and "layer upon layer", which greatly weakens the flexible function of community risk governance.

#### ***3.4. Technical dilemma: the utilization level of wise governance technology is not high***

It is an important way to improve the resilience of community technology to integrate the multi-subject forces of streets and make full use of information resources and bring information efficiency into play in time. Communities undertake a lot of detailed and complicated basic work, which shows a high degree of dependence on the collection, collation, reporting and sharing of relevant information. However, restricted by technical tools, governance mechanism barriers and other factors, community emergency intelligent information system is relatively lagging behind, many software connection is poor, the system runs slowly. Information collection mainly relies on human sea tactics and manual operation, if the quality of information data is not high, it's safety and convenience can not be guaranteed. In addition, intelligent technology strengthens the dependence of community managers, and staff pay too much attention to data and lack of work initiative, which is easy to cause risk decision-making mistakes.

### **4. Strategies for improving resilience construction of urban communities in the context of risk society**

Community resilience is the basic level of urban resilience under the research of "resilience". Enhancing community resilience to enhance community risk prevention and control ability has become the most basic guarantee of public security in China. Of course, the construction of resilient communities itself is also a complex systematic project, which should focus on strengthening forward-looking planning and overall thinking around the modernization of community risk governance system and governance capacity. The following is a further discussion on the concrete ideas of urban community resilience construction in China, in order to provide reference for the implementation of community resilience governance in the future.

#### ***4.1. Strengthening the redundant construction of community infrastructure and public space***

Whether the emergency infrastructure is sound or not has an important impact on the risk management of resilient communities, that is, in the face of major public emergencies, it is possible to minimize community hazards only when the infrastructure is complete<sup>[5]</sup>. Therefore, in order to achieve resilience governance, we must start from the basic design, and fully consider the resilience and convertibility of community hardware. In the construction of emergency infrastructure, it is necessary to find out the situation of residents' life, available resources, risk sources and so on, and carry out reasonable transformation of the community with old environment and poor infrastructure. Every community should be adequately stocked with emergency supplies and relief facilities, and have the basic capacity to sustain its operations in the event of a sudden major disaster risk. When creating flexible public space, it is necessary to make full use of existing leisure facilities, service centers and other resources in the community on the basis of not affecting the normal life of residents, establish reasonable emergency places, and configure multi-functional public space with complete facilities and emergency rescue functions for emergency accommodation and settlement. In particular, it is necessary to increase the investment in community medical and health places, so that community residents can enjoy the nearest medical services, calm the panic of residents, and effectively prevent the conflict between doctors and patients after the occurrence of sudden risk events.

#### ***4.2. Developing a community of diverse cooperation and governance guided by Party building***

The construction of resilient community needs to strengthen the social resilience of the community, which requires the construction of a resilient community governance community jointly built, co-governed and shared, and effectively mobilize the enthusiasm and initiative of all subjects to

participate in community governance. Firstly, giving play to the summoning power and influence of the Party organization on risk management, giving play to the leading role of the Party building in the establishment of demonstration communities, and effectively reverse the atmosphere of bureaucratism and formalism in emergency management. Secondly, encouraging community self-organization and public participation to promote community residents' communication and training of disaster awareness. Strengthening residents' community participation, mutual cooperation and neighborhood mutual assistance by mobilizing residents' enthusiasm, thus guiding residents to actively assume responsibilities, enhancing community social cohesion, fostering community safety culture and community capital resilience. Thirdly, reducing the barriers to participate in community construction for community enterprises and social organizations, based on the guiding mechanism of Party construction, effectively carry out cooperation with community enterprises and social organizations, such as jointly building community and social capital, setting up volunteer service associations, etc., and integrate the diversified development of the community with the help of resources outside the community, so as to enhance the risk prevention and control ability of the community.

#### ***4.3. Improving the community risk management system combining peacetime and wartime***

A scientific and systematic community risk management system can play a timely and elastic positive role in both normal and abnormal community management, which is an important guarantee for the realization of community resilience governance combining autonomy, rule of law and rule of virtue. Therefore, it is necessary to improve the cooperation mechanism between the government, neighborhood committee, self-organization and residents, improve the cooperation and trust between various actors in the community, maintain and enhance the organization coordination ability of the community in emergency management through information sharing and plan drills, and achieve multi-layer cooperation to fight against disasters. It is necessary to build an interlocking mechanism that relies on wartime propaganda and normal education. In order to cultivate the crisis awareness and risk sensitivity of residents, communities should carry out safety education activities and emergency drills, integrate the management of public health emergencies into the regular work arrangements of communities, and create a good atmosphere for the whole community to prevent risk disturbance and resist the impact of disasters. Feasible community emergency management plans should be formulated, the content of which should be in line with the civil and social conditions of the community, focusing on prominent issues such as information disclosure, risk prevention, medical treatment and material reserve, so as to improve the operability and pertinence of the plans and ensure that the community can deal with public risk events in an orderly manner.

#### ***4.4. Improve the intelligence level of community emergency response enabled by science and technology***

At present, the Internet, big data and other information technologies can inject new ideas into the emergency response work of resilient communities from the aspects of risk monitoring and early warning, efficient resource sharing and so on. Specifically speaking, one is to build a digital community risk dynamic identification early warning platform. Using the intelligent information system to emergency information collection and reporting, analysis and utilization, realize the "risk identification, risk assessment, monitoring and early warning" emergency information sharing interaction, comprehensively perceive the community risk sources and intelligent analysis, timely stifle the risk in the bud, but also can avoid the complex community crisis caused by insufficient information. The second is to establish the community public health service information system. Specifically, it is necessary to strengthen the standards and norms for collection of community residents' public health information data, promote the data integration of community residents' health and public health information system. Also, improve the informatization level of community public health services by centering on serving residents' health and focusing on residents' electronic health archives. The third is to explore a dynamic assessment mechanism for community resilience. Building resilient communities is a process of gradual incremental renewal that requires continuous dynamic assessment to clarify the direction of development<sup>[6]</sup>. Therefore, exploring a scientific assessment index system for resilient communities and studying the construction and development barriers of resilient communities can help improve the level of resilient community risk management.

## 5. Conclusions

All in all, social risk prevention and control practices in recent years fully prove that part of the construction of resilient communities has been reflected in the construction of disaster prevention and mitigation demonstration communities in the past. However, it is a pity that the concept of "resilient community" has not been officially used by the Chinese government to lead the construction of community risk governance system. Some well-developed communities also have problems in different aspects and degrees in promoting the construction of resilience. Therefore, in the future, party committees and governments at all levels should put the construction of resilient communities on the agenda as soon as possible, systematically optimize the structure of community resilience, effectively improve the level of community resilience, and comprehensively improve the ability of community risk management. In order to better cope with the impact of various risks and challenges that may appear in the future.

## References

- [1] Yang Lijiao, Jiang Xinyu, Zhang Jiquan. *Community resilience under natural disaster scenarios: a review [J]. Journal of catastrophology, 2019,34(04).*
- [2] Zhang Yizhen. *Resilient community building for risk management: Reflection based on the initial prevention and control of COVID-19 [J]. Science of Emergency Management in China. 2021,(03).*
- [3] Liu X. *Community resilience management in the context of public health emergencies and its implementation path. Heilongjiang Human Resources and Social Security. 2022,(05).*
- [4] Pang Yu. *Innovative mode of smart Community emergency Management [J]. E-government, 2016 (09) : 104-109.*
- [5] Shi Shengxu, Zhou Xiaolin, Zheng Yifang. *Emergency management of resilient communities: Logical Analysis and strategy selection [J]. Urban Development Studies. 2021,8(03).*
- [6] Wang Dongjie, Xie Chuanyu, Wang Xudong. *Resilience Management: A New Dimension of Emergency Management in Urban Communities [J]. Jianghuai Forum. 2020,(06).*