

# Research on the Evolutionary Path and Countermeasures of Environmental Mass Events—Taking the Shahu Incident in Wuhan as an Example

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Abstract: The number and scope of environmental mass events have been increasing year by year, and the characteristics of violent resistance have become increasingly prominent, which have brought considerable pressure on social governance. Looking at many environmental mass events at home and abroad, it is not difficult to find that there is a logical chain of "risk amplification-response strategy-conflict outbreak". From the static perspective, the evolution of environmental pollution group events reflects the system relationship among various stakeholders; from the dynamic perspective, the evolution of environmental pollution group events reflects the dynamic development process and the dynamic game in each stage. This article uses the lake of sand in Wuhan incident as a case to apply and verify the interpretive framework. Finally, three aspects of ex ante prevention, in-event control, and post-event recovery are discussed in depth on the comprehensive management of such mass events. Contradictions and avoiding larger social conflicts provide useful references.

Keywords: Mass Events; Collective Action; Evolution Mechanism

#### 1. Introduction

## 1.1 Research background

Mass incidents caused by environmental pollution projects are increasing at an annual rate of 29%, and the degree of confrontation is higher than other types of mass incidents. [11] In other words, China has entered a period of high incidence of such incidents, and the sensitivity of the broad masses of the people to environmental issues has forced governments at all levels to address environmental pollution and risks in order to promote economic and natural harmony and common prosperity. [21] The authoritative definition of environmental group events has not been formulated yet, the West often refers to the collective actions taken by the people under environmental hazards, such as neighborhood resistance and environmental movement, in order to maintain their right to production and survival. [3]

#### 1.2 Research review

The theory of structural fracture was put forward by Sun Shaoping. Its main view is that China is in a "fracture society". He found that in France, the original hierarchical pyramid structure is gradually disappearing and replaced by the marathon model. In the pyramid, although people have different positions, they are still in the same structure. In the marathon mode, some people will fall behind after each run. This part of people are not dropped at the bottom of the structure, but directly excluded by the structure. [4] In the 1990s, the concept of public participation began to be widely used in China. Wu Ling

believes that in environmental group events, public participation at the level of public decision-making is mainly involved. When the enthusiasm of public participation does not match the actual level, collective action may occur.<sup>[5]</sup>

As the key interpretation perspective of environmental group events, risk perception theory mainly has two university schools: the first is the cultural theory school headed by Mike Thomson and Mary Douglas. This school tries to understand the relevant risk behavior and perceive the risk from the life pattern of the perception object. [6] The second is the school of psychological assessment led by Linat Sebury and Paul Slovich, which studies the problem of risk through the theoretical tools of psychology, focusing on measuring people's subjective cognition of the root causes of risk. [7]

Environmental group events belong to group events. Therefore, it is also very important to explore them from the perspective of collective behavior theory. On this theory, there are mainly supporters such as Tilly, Blumer and Sidney Tarot. The first is to impose immediate physical persecution on individuals; Secondly, the number of perpetrators should be two or more; Finally, at least a small part of this physical injury is achieved through their mutual cooperation. The above are the three necessary parts of collective violence. When the public power is relatively strong and the level of democracy is relatively perfect, the damage caused by collective violence is relatively low.<sup>[8]</sup> Collective behavior is mainly the product of irrationality, which is analyzed from the perspective of social psychology.<sup>[9]</sup> Blumer believes that collective behavior will experience the process of collective running in, collective excitement and social infection, which is analyzed from the perspective of circular response.<sup>[10]</sup>

Scholars represented by McCarthy believe that the success of the action largely depends on the richness of the resources it controls and the integrity and unity of the internal structure. After mastering resources, actors will actively integrate and effectively mobilize them to organize group events.<sup>[11]</sup> Gould divides the communication network of group events into formal and informal, which intersect and function together in the internal process of the organization.<sup>[12]</sup>

Solving avoidance dilemma is also a key hot issue in understanding environmental group events. The neighborhood avoidance movement mostly refers to the social movement that local residents choose to protest and other ways to refuse such construction in the surrounding areas because they are worried about the possible environmental risks caused by the project construction. Eric Levinson studies the effect of western tax system on the phenomenon and degree of pollution. Through the study of the data of neighbor avoidance tax in the United States, it shows that after the collection of hazardous pollutant disposal tax, the input of hazardous pollutants into states has been greatly reduced.<sup>[13]</sup>

## 2. Concept and characteristics of environmental group events

Western scholars usually use concepts similar to group events to define, such as "cluster behavior" and "collective action". David popuno once said in his research that cluster behavior is an unorganized behavior with poor stability spontaneously made under the influence of some common encouragement. [14] There is a consensus that the nature of group events is the contradiction among the people, not the contradiction between ourselves and the enemy. Therefore, the attitude of government departments in managing group events is particularly important because of this nature.

Firstly, the environmental group events are caused by more prominent environmental problems. This may be due to the previous abnormal performance concept of local governments, which traded the environment for a high-speed growth economy. This backward development concept of "golden mountain and silver mountain" and giving up "green water and green mountain" has been abandoned by the times and resisted by the broad masses of the people with increasing awareness of environmental protection; However, in addition to the backward concept of development, with social development, the increase of population and technological progress, in order to ensure the power of development and the supply of resources, the development of large-scale projects is also necessary, and exists as a rigid demand.

Secondly, the number and scope of this kind of group events are increasing and expanding year by year. The former is reflected in the increase of the frequency of environmental group events every year, and the latter is reflected in the number and scale of personnel involved. With the progress of quality and thought and the improvement of their concern for themselves, the people's desire to express their demands has gradually increased, and their interest demand for a good living

environment and awareness of environmental protection have also gradually increased.

Finally, the characteristics of violent resistance are obvious. During rallies, individuals often lose their reason and take violent measures. From the degree of victims, material losses and violence, it can be divided into two forms: low violent resistance and high violent resistance. The destruction level of such events has increased sharply, which undoubtedly makes it more difficult for local governments to govern. Especially when the degree of violence has seriously endangered public security and people's survival, its negative impact is very large.

## 3. Evolution path of environmental group events

Looking at many environmental group events at home and abroad, it is not difficult to find that there is a continuous logical chain within them, that is, first go through the process of risk perception and social amplification, and then both sides adopt their own coping methods. When the coping methods can not satisfy both sides, the conflict will escalate.

## 3.1 Risk amplification

Because the people's understanding of some professional problems is not deep enough, they generally understand and understand these problems through their daily life experience, which reflects the people's limited ability to deal with environmental risks and can only replace the knowledge blind spot into the common sense framework. For example, people will regard environmental problems that may only have certain uncertainty as a crisis.

Psychological research has proved that people's panic often comes from uncertainty. People "tend not to think about the most likely scenario, but choose to complain about themselves in the worst possibility." [15] This situation occurs in many environmental group events. Experts believe that the risk judgment result of the project is only a possibility and a potential crisis. However, there are widespread views among the people that the project will threaten their own security and the environment.

In addition, the mass media also plays a prominent role in guiding public opinion. Baker believes that the mass media bears the responsibility of publicity and helping risk management.<sup>[16]</sup> With the rapid development of the Internet and the emergence of various emerging media, in order to compete for the right to speak and attract readers, many media will use exaggerated words or take them out of context, making people misjudge the severity of the current and future situation. The role of the media in self cognitive positioning is gradually blurred and forgotten, and all kinds of amplified risk information are also spread.

Goffman pointed out: "stigmatization is a process in which society labels some individuals or groups in a derogatory and insulting way, which leads to social injustice and other consequences." [17] The public will resist the engineering projects and infrastructure labeled with stigmatization, such as crematoria and mental hospital, which are difficult to accept in the traditional psychological sense of the public and easy to cause fear, will be excluded by the public.

# 3.2 Coping strategies and behaviors

When there is little difference between people's and government's perception of the same project, conflict may be avoided. When there is a big difference between the two perceptions, the two sides will comprehensively consider the actual conditions, such as the availability of resources and the comparison of the strength of the two sides, and then take the following corresponding measures: 1 Tough, one party tries to force the other party to accept its preferred disposal methods; 2. Compromise. When you are not unhappy that the disposal plan does not meet your expectations, adjust your expectations appropriately; 3. Win win and find a disposal method that can satisfy all parties; 4. Escape, face the conflict with a negative attitude and do nothing. The attitude of the first three measures is active and eager to solve the existing contradictions, while the avoidance measures are passive. The latter three measures are relatively mild and can alleviate the contradiction to a certain extent. Tough measures are likely to make the conflict explicit.

The number of participants and leading actors will promote the violence of the movement. As for the former, Peters once

proposed safety quantification, that is, according to the psychological law of the people in mass events, the more participants in the team, the lower the probability and possibility of being punished by the government. In other words, the more people, the safer. [18] Ganmson put forward the concept of common characteristics, that is, when individuals are in a limited geographical area and face the threat of the same ecological problem, they will form a group, and they have become the so-called community of destiny. [19]

As for the latter, the latter plays an extremely important role in environmental group events. Although such incidents are unorganized and there will be no actual so-called person in charge, in collective action, there is indeed an invisible leader leading the development of the situation. In addition, there are many celebrities who have not directly participated in the movement, but their popularity virtually mobilizes the participants and spreads the information more widely.

### 3.3 Outbreak and escalation of conflict

As a theory with wide applicability and explanatory power in many group events, the "conflict spiral model" proposes that if one party's behavior is easy to cause controversy, it will induce the other party's retaliatory response, and this response will further make one party make controversial behavior. The escalation of conflict is actually the result of the vicious circle under the tactical promotion of defense. When one cycle ends, the next round will be carried on.<sup>[20]</sup>Therefore, once the conflict spiral begins, both sides may be unwilling to give up their interest demands and show weakness before the goal is reached due to various reasons, or they may be afraid that when they compromise and make concessions on this aspect, the other side will take advantage of the victory to pursue an inch, reconciliation is almost impossible, and the conflict spiral will not stop. The conflict in a spiral state may be an insignificant problem at first, but due to the lack of trust, dialogue and consultation, it has gradually escalated into an extremely serious violent group incident.

## 4. Typical case analysis: Wuhan Shahu incident

#### 4.1 Case overview

In previous years, the average annual precipitation in Wuhan was about 1300 mm, but from June 30 to July 6, 2016, the precipitation exceeded 580 mm in a week, reaching the level of 44% of the average annual precipitation in Wuhan. This heavy rainfall became the highest value in the history of Wuhan since its own meteorological records. [21] The rainstorm trapped more than 3700 households in Hongshan District. The residents of Nanhu Yayuan, a severely affected community, persisted for 15 days without power, water and network, and the accumulated water in the community was as high as 1.5 meters.

The waterlogging was partly due to natural conditions. Wuhan is located in the low-lying southern region; But the deeper reason is that Wuhan's urban expansion is too fast, the construction of infrastructure drainage facilities has not kept up with its speed, and the development has greatly exceeded the carrying capacity of the environment at the stage of emergence. Data show that over the past 50 years, the number of lakes in Wuhan has decreased from 127 to 38, with an average of 3 disappearing every two years. Shahu has a superior geographical location, is located in the inner ring of Wuhan, and is the largest lake in the city, so it has become a must for developers.

# 4.2 Conflict perception

Risk exposure makes the risk of the event explicit and spread rapidly through the media or various ways. In early 2011, some netizens posted on the Internet that Shahu is facing a huge threat, and the residents around Shahu also reported to the TV station that the municipal government illegally traded the public greening planning land to the real estate enterprises, and the enterprises are obtaining more commercial land and building new buildings by filling the lake. Shortly after that, people's daily and CCTV news 1 + 1 reported on the topics of "how does the lake view become a lake view room" and "Sand Lake, don't" kill Lake ", making this event a social hot spot.

When determining the risk, participants will seek the information they prefer.<sup>[22]</sup> In the Wuhan Shahu incident, the government and enterprises formed an information interpretation framework for filling the lake and building that the risk is controllable, while residents generally formed an interpretation of the risk out of control for the project, and they are worried and uneasy about the project and its consequences.

With the rapid development of domestic real estate industry and the demand for people to live near the water, many lakes in Wuhan have been developed and built into houses. Although the public also recognizes that the project can bring very obvious positive effects to urban GDP and other strategic priorities, they may have nothing to do with their own interests, and the public must bear the ecological damage and other consequences caused by the project construction. Data show that more than 351 cities in China experienced waterlogging during 2008-2010 alone, [23]One disaster after another makes the people of Wuhan show a negative trend in the evaluation of Shahu construction.

## 4.3 Early violent resistance

In June 2015, the engineering team settled in Shahu and the large equipment began to operate. Residents wearing shirts with slogans rushed into the construction site to protest. Once the facility began to operate, the monitored resident representative would sound the gong to greet the rest of the residents to rush to the construction site. As a result, there was always a conflict between the residents and the security personnel, which lasted for more than three months. Some residents were invited to participate in the TV program on politics produced by Wuhan TV station. Residents argued in the program, but the program was not broadcast in the end. Because he had repeatedly stopped the machine from starting at midnight alone and bravely jumped into the lake to raise a sign during the inspection of the relevant leaders of the municipal government, Comrade Wang Zhiming, a protest activist, was called a "righteous man for protecting the lake" by the residents.

## 4.4 Policy game

Three months after the start of the project, residents near Shahu finally chose to take up the weapon of law. A total of 39 community owners jointly sued Wuhan Water Authority and asked the water authority to transport them to the countryside and restore the lake after scientific treatment in accordance with the initial dredging policy. After six months, the final ruling of Jiang'an District Court was that the residents won the lawsuit, and issued an order to the water authority to deal with the existing sludge and lake filling within 60 days.

# 5. Response mechanism of environmental group events

# 5.1 Risk perception stage

Rumors are largely caused by information asymmetry. Especially in environmental group events, the sources and channels of people's acceptance of environmental protection information are relatively narrow. The government should give full play to the role of information disclosure system, especially for projects involving people's interests. The government has the obligation to disclose information in a timely and complete manner on a reliable platform.

First of all, ensure the procedure of environmental impact assessment first and construction later, so that conflicts and contradictions can be exposed before construction and solved in time, which can not only improve the efficiency of construction, but also ensure the legitimacy of construction. Secondly, strictly implement the qualification system for relevant interest groups, especially the public, to participate in the hearing of environmental impact assessment, and improve the influence of public will on the decision of review results.

The root of environmental conflict lies in environmental pollution. Therefore, in order to fundamentally reduce the occurrence of such mass incidents, it is necessary to change the current economic development model. Wuhan is a city with rich cultural heritage. On the basis of retaining the original lakes, the local government can build and develop a number of wetland parks to tap the potential of tourism value.

## 5.2 Early response stage

First of all, we should improve the petition system. Many group events have experienced many unsuccessful petitions before moving towards violent conflict, which is also an important trigger for such events. The government should effectively listen to the opinions of the people, seriously treat and deal with petition cases, and nip the escalation of conflict in the bud. Secondly, the rights protection and supervision of some ecological environment can be transferred to non-governmental organizations, which can not only reduce the burden of affairs, but also broaden the communication channels between the government and the people.

The development of new media makes information dissemination more rapid, but at the same time, it also increases the pressure on the management of government public opinion. Various platforms are rich and diverse. Local governments should actively improve their response ability, strive to improve their skills, operate official network platforms such as microblog and wechat, use the platform to break through the information barrier between official public opinion and private public opinion, strengthen interaction, better complete crisis early warning and public opinion control, and seize the initiative and voice of public opinion.

# 5.3 Conflict outbreak stage

Environmental pollution is not only caused by factories and enterprises, but also by the relevant departments of local governments whose supervision fails. We should improve and clarify the laws and regulations related to ecological protection and pollution discharge, so as to truly have laws to follow; Law enforcement officers should put the interests of the masses in the first place. Laws must be observed, violations must be prosecuted and law enforcement must be strict. For enterprises, the administrative punishment for illegal acts should be strengthened. The products that may cause serious pollution that have not been approved by enterprises are not allowed to be put into production. From the perspective of increasing illegal costs, enterprises should be encouraged to pay attention to environmental protection.

For the environment that has been damaged, first of all, stop the project in time, remedy it, and strive to restore the environment to its previous state. For the people who suffer physical or property losses due to the implementation of the project, they should bear the responsibility of medical assistance and financial compensation. For the environment that is still at risk and has not been actually damaged, the government should carefully measure the risk and the possibility of deterioration. For some high-risk construction, it can be considered to stop or move to other places. If it cannot be stopped or moved to other places, the duration of the project should not be too long. It can specify the daily production time and the maximum number of years to minimize the impact on the environment and nearby people.

#### 6. Conclusion

The continuous exposure of environmental group events will inevitably have a negative impact on social governance. First, the government lost its authority and fell into the Tacitus trap. No matter what the government says is a lie or the truth, and whether the government does good or evil, due to the loss of credibility, the people are full of distrust of the government and suspicion breeds, so the people will think that the government is lying and doing bad things. Secondly, the violent movement distorts the concept of democracy, which is not only detrimental to the long-term stability of society, but also brings demonstration effect. In the face of some illegal violent protest activities, if the government blindly chooses to give in, it will contribute to the occurrence of such events to some extent, and the interest demands must be expressed in a legal and civilized way. In conclusion, the Governance Dilemma of environmental group events should become the foothold of the reform, which is very important for maintaining social stability and the development of economy and various undertakings.

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