

# **The Study of NIMBY into Public Crisis in China ---Based on the Analysis of Maoming PX Event**

**Ma Li<sup>1</sup> and Liu Licai<sup>2</sup>**

<sup>1,2</sup> Department of Management, China West Normal University, Nanchong, Si Chuan, China,

**Corresponding Author:**

**Liu Licai,**

Professor in management department, China West Normal University,

NO.1 Shi Da Road, Nanchong,637009,

Sichuan, China

Email:13890796734@163.com

**Abstract**

*Theoretically the NIMBY caused by the PX event is a pure technical matter, nevertheless it evolves into the public crisis in China. The evolution of the NIMBY into public crisis experiences five phases: risk identification and perception, risk amplification, crisis explosion, crisis reduction and the secondary risk, which is a process of boosting and lessening risk. Accordingly there are two streams for dealing with the PX risk, one is the strengthening stream favored by the citizens, the other is the weakening stream conducted by the authority. Moreover, the root source of NIMBY into public crisis is the contradiction between the increasing demand for Chinese citizens political participation and the traditional management stagnation. Therefore the improvement of citizens political participation qualities and the upgrade of the authority modern governance capabilities and systems are the solutions.*

**Key words:** Risk, Crisis, PX Event

## **1. Introduction**

Nowadays people lived with a risky society, a modern critical public word by Ulrich Beck, which is a reflection of the modernity (Ulrich Beck, 2004a) and made by human themselves. Some scholars regard social risk as the realistic disastrous uncertainty (Wilson and Crouch, 1982), but some hold that social risk is the subjective construction result (Wynne, 1992). Besides others combine the ontology and epistemology definitions together (Nick Pidgeon, 2011a). Most of the social risk today is closely related with institutional drawbacks (Rong Zhi, 2012) and it is a structural dilemma, for the risk source is the social structure transformation and the generative drive is the social conflict and hierarchy (Pan Fu, 2007). The public crisis is the practical result of social risk (Zhang Haibo, 2006). However the evolution of social risk into public crisis is a complex process. Zhu Demi thinks lacking of public participation and ignoring the emergency management contribute to the transformation between social risk and public crisis (Zhu Demi and Ping Huiyan, 2013). Sha Yongzhong argues the evolution of social risk into public crisis is a process of uncooperative and cooperative game between the authority and citizens (Sha Yongzhong and Zeng Xiaofang, 2013). And Liu Jin believes the social risk, emergency event and the public crisis constitute an evolutionary logic of continuum (Liu Jin, 2013). Furthermore, Nick Pidgeon and others construct a social amplification model of risk (Nick Pidgeon, 2010b). The generation of a special crisis is a dynamic process and usually includes five stages: the brewing phase, the outbreak phase, diffused period, dealing with the problems period, the results and the sequelae in industry (Simon A. Booth, 1993), however, that theory can also be applied to the public management fields. Based on the crisis life cycle theory, taking the Chinese Maoming PX event as the studying case, this article will discuss how the NIMBY evolves into the public crisis and what's the essential source behind it.

## **2. Chinese Maoming PX event**

PX is the short name of P-Xylene which is a significant chemical material in industry, it can bring huge economic profits. However, whether it is toxic or harmful to human's health is still in question. In 2007, some professors in Xia Men, China pointed out that the PX project in Xia Men threaten citizens health and they put forward a proposal for the authority so as to remove the project sites, but failed. Nevertheless, the NIMBY aroused a large number of citizens to demonstrate on the street, and later the local government was reluctant to change the project site. From the year of 2007, numerous PX events occurred, such as Qing Dao PX events in 2008; Da Lian PX event in 2011; Ning Bo PX event in 2012; Peng zhou and Kun Ming PX events in 2013, and the latest news about the failure of PX project is in Fu Jian on 6<sup>th</sup> April 2015. One of the most influencing PX events happened recently is the Maoming PX event in Guangdong Province China 2014.

In 2012, the Maoming government cooperated with an oil company to introduce the PX project, which admitted by the national development committee. Since many PX events

happened before, citizens have always been sensitive to PX projects. Some people were worried about the toxicity and against it, but it didn't work. In March 2014, the authority high profile publicized the nontoxic PX projects, calling citizens to accept the project. Unfortunately, it triggered citizens panic. On 30<sup>th</sup> March some citizens gathered in front of the government gates and asked for settling down this issue, some people even conflicted with the police and there was a disorder. With more and more people and rumor involved in this issue, the government was in the passive position and had to cope with it, launching press conferences, pledging citizens participation, etc. However, as time elapsed, the PX project final result was still unknown.

### **3 .The evolution of the NIMBY into public crisis**

The evolution of the Maoming PX crisis can be divided into five phases: the risk identification and perception; the risk amplification; crisis explosion; crisis reduction and the secondary risk, which is a process of strengthening and weakening risk.

#### **3.1 The risk identification and perception**

For a long time Chinese citizens have not been aware of the threat by PX, until recently some experts stated it was toxic. Although the authority and other professors emphasized there was no proof for PX toxicity, Maoming citizens would rather believe than suspect it. In this phase, citizens and the authority perceived different degrees of risk. For citizens, they regarded the PX project as a high risk project, which may threat their health. The allocation of risk and treasure is not symmetrical, the treasure is always located in the upper, but the allocation of risk is the opposite(Ultich Beck,2004b), which manifests if the PX is poisonous, citizens will pay for the risk. Citizens held a strong sense of crisis, they thought the authority might betray them by coordinating with the PX enterprise in order to boost the local economy or improve the government performances. While for the authority, they maintained the introduction process of PX project was legal, since no proof for PX toxicity has proved and the PX project could largely attribute to local economic development, the PX project should belong to the low risk project.

#### **3.2 The risk amplification**

Once a risky issue can strengthen or decrease the cognition of risk and shape the interaction between the pattern of risky behavior and the psychological, social, institutional and cultural process, it can generate ripple effects and create secondary impact by means of amplifier stations (Nick Pidgeon,2010c). When people related detected the NIMBY risk, they took efforts to enlarge the sense of crisis for seeking more citizens supports.

At the beginning, related citizens tried institutional rules to influence the authority, such as Petition Letter, or making suggestions. Sometimes, the government would respond it, holding a forum to discuss it. But in most case there was no relay.

After that, related citizens started to find other approaches to express their worries. Usually they would choose face to face talk or the internet or text messages to deliver their thoughts. They were always attempting to affect citizens as much as possible. Taking the advantages of Internet, building PX post bar, or forums to disseminate the negative side of PX projects, they established a temporary informal organization. As a result, outsiders were affected, People with various interests joined in the game and made comments on it.

When related citizens considered they have obtained enough supports from the virtual fields, they tried to transform the opposed opinions into practical objections. So some anti-PX citizens called on demonstration at a given time and place. Moreover related citizens sent messages to numerous citizens, inviting more citizens to join them for the sake of Maoming's environment and their own health.

Conversely, the authority made light of the opposition. Few government departments stood out to guide the public opinion, only let it be. Instead when the government attempted to deliver some PX knowledge, it was suspected by the public. That means the related citizens influenced other citizens more profound than the authority.

### **3.3 The crisis explosion**

When the conflict between anti-PX groups and the authority developed into a hot point, the public crisis broke out. On 30<sup>th</sup> March 2014, anti-PX groups gathered together in front of the government gates for dissatisfaction. Some outsiders joined it for curiosity, yet some lawbreakers tried to commit a crime or fomented strife. On that day, few people fought with the police, and the social order was disturbed.

In addition, some people cooked up rumors and spread them around, saying there were blood fights. Some anti-PX citizens posted the event's pictures or @ the famous for seeking more concerns. Through the ripple effects, more and more citizens paid attention to the PX event. Consequently, the medium actively participated in the issue reports.

### **3.4 The crisis reduction**

Government was always striving to weaken the crisis, more diversified approaches were adopted. First, controlling the state of the event. On that day, the local government released an announcement calling for rational citizens. And later, held a press conference to respond to the event. Second, emergency communication. The authority got command of medium in case of more rumors, and promised citizens participation. Finally, multi-central governance, which invited more government departments, citizens, experts and enterprises to work together to settle down the PX issue.

Not only the internal bureaucracy pressure mechanism built up, but also citizens, medium, and other subjects constructed the external stress system. When the government actively responded to the issue, a new information source generated. Positive information transmitted among the amplifier stations as citizens knew the authority would take it seriously.

### 3.5 The secondary risk

Even though the public crisis quickly quelled by the authority active response, the secondary risk still existed. First, there was still no substantial result of Maoming PX project; and second the root source of PX event which was the contradiction between citizens political participation demands and the traditional management stagnation has not yet been eradicated. Moreover, the Maoming PX event might trigger PX conflicts in other places. In other words, the secondary risk which could be magnified might transform into the public crisis again, making another PX vicious circle.

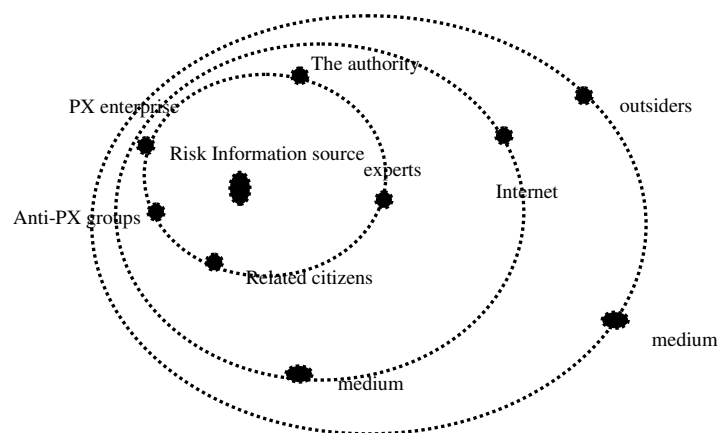
## 4 Discussion

### 4.1 Two streams of risk amplification

The evolution of NIMBY into public crisis is a process of expanding and reducing risk, accordingly there are two streams for handling the PX crisis: the strengthening stream and the weakening stream.

For the strengthening stream, we might as well divide the amplification of PX risk into three layers, as figure1 depicted.

**Figure1: The Ripple Effect of Chinese PX Risk**



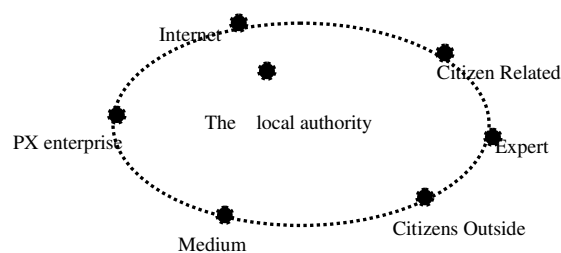
Originally, the PX project should be a technical matter concerned by related groups such as anti-PX groups, citizens around the PX industry, the authority, the related enterprise and some experts. However the uncertainty of the toxicity aroused related citizens' worries about their health or environment. In that layers, the asymmetric information travels between the authority and citizens, leading them hold different risk perceptions. Disturbed by the NIMBY and dissatisfied with the authority non-action, citizens related regarded the project as a high risk, they tried best to enlarge the risk sense, giving their suggestions for the authority, taking advantage of Internet, and messages, posting or commenting on the virtual fields. Some

voices could easily aroused sympathy among people. Consequently, more people got interested in this issue and few medium kept a watchful eye on it, but not many, as the medium are dominated by the state.

In the third layer, citizens outside participated in the game. Even though the authority dominated the institutional rules, citizens related occupied the advantage of public opinion. NIMBY was a hot topic which easily shocks citizens morality and concerned with human basic rights or the trust between citizens and the authority. With the assistant of Internet and other amplifier stations, anti-PX groups changed the averse voice in virtual world into realistic protest, Bringing about the public crisis, activating medium's participation, causing more people outside to concern about this issue. In short the strengthening stream successfully dominated the game.

For the weakening stream, the authority did somethings before the public crisis, but made it slightly. When the public crisis broke out, confronted with both internal and external pressure system, the local authority increased the intensity of weakening risk. Signifying a strong message that they would take it seriously, not only did they invite other related groups to settle down this issue, but also guide the public opinion. Focused on the authority, a strong weakening crisis mechanism generated which was distinguished from the ripple effect, instead the authority directly exerted influence on the related groups, as figure2 shown. With more subjects participated in the decision making, the public crisis was settled down by multiple centers. However, the root source of risk was not resolved, and the secondary risk still existed, one day in the future, it may transform into the crisis again.

Figure2: The Weakening Crisis System in Chinese PX Event



Overall, there were two streams to cope with the PX risk. One was citizens centered which emphasized to boost the risk; the other was the authority-based which devoted to lessening the risk. The weakening stream dominated at fist place, but with the expansion of ripple effect, citizens gained more social supports, the strengthening stream was prior to the weakening stream when the public crisis reached the peak. For the authority, before public crisis, they have been weakening the risk, but not seriously. However disperse government departments closely cooperated to reduce the risk, and the weakening stream came back to take up the mainstream again after public crisis.

#### **4.2 How can PX crisis happen**

The evolution of PX risk into the Public crisis manifests the contradiction between the increasing citizens political participation demands and the traditional public management stagnation. The NIMBY by PX project was not simply a technical problem, but also involved various interests, such as worries about the PX processing technology and the survival environment, profits of house removal, local economic benefits, the distrust for government, and some historical conflict accumulation. In most cases, the authority introduced the PX project stealthily, which means the information about PX project was not public. When citizens related noticed the PX project and heard some experts once pointed out it's toxic, they were scared and questioned if the PX were nontoxic, why the government couldn't take out the exact nontoxic proof, rather than maintain no toxic evidences have been testified, and who would be responsible for them if the PX were toxic, if the government couldn't answer it, why the PX project still operated. They struggled for conveying those worries to the policy decision mechanism. First they were rational to try the institutional paths, but failed, because there weren't any effective and neutral communication platforms for citizens, almost all communication mechanisms were controlled by the authority. Thence citizens related made attempt to search other methods out of the bureaucratic system, and the Internet provided the best solution, for at present, it has been a blank for the traditional public management. With the help of social network supports, Anti-PX citizens "voting by feet" triggered the public crisis, causing citizens political participation demands reached the climax, which could not ignored by the authority. So the local government changed the traditional command and obedience approach, taking multiple ways to invite more subjects to settle down the crisis. As the requirement of citizens political participation was temporarily met, the public crisis quickly quieted down. However, no advisable routine mechanism for citizens political participation was established, namely the root contradiction for the PX crisis wasn't resolved. And that's the reason why Chinese PX events have occurred again and again in recent years.

In the political participation game, citizens were always in the disadvantaged position. For they were lack of the informed rights about the PX information in the beginning, and later suffered a setback of expression rights and gaming rights. On the other hand, the traditional institutional system could not catch up with citizens demands. First there wasn't a special department for PX project which was managed by various sections, so every branch could say there was no responsibility for them to deal with citizens' complaints. Second the institutional communication office had no real power to make a big choice, as some of them were led by the PX related authority. Therefore, even some government departments perceived the pre-crisis, they could do nothing as the bureaucracy was an integral institution. Third an authority emergency mechanism was missed, since the local government not only lacked of a risk emergency communication system, but also slowly reacted to citizens complaints. Obviously the contradiction between increasing citizens political participation demands and the traditional public management stagnation can not be resolved in a short time,



it involves political structural reform. On one hand, citizens should improve their own political participation qualities, being rational; on the other hand, the improvement of modern governance capacity and system for Chinese authority is badly in need.

## **5 Conclusion**

To sum up, NIMBY in Maoming PX event is beyond a pure technical or environmental issue, it develops into a public crisis. And the evolution of NIMBY risk into public crisis comprises five phases: risk identification and perception, risk amplification, crisis explosion, crisis reduction and the secondary risk. There are two streams which can explain the amplification of the risk. The root source behind the evolution is the contradiction between the increasing Chinese citizens' political participation demands and the traditional management stagnation. Thus expanding the participation paths, developing the citizens' political participation quality and improving the authority governance capacity and system can be effective strategies.

## **Reference**

- Liu Jin. (2013) The Study of emergency management under the evolutionary logic of "social risk-public crisis". *Socialism Study*6,100.
- Nick Pidgeon, Roger E. Kasperson, Paul Slovic. (2010a) *The Social Amplification of Risk*. China Labour & Social Security Publishing House, PP.43.
- Nick Pidgeon, Roger E. Kasperson, Paul Slovic. (2010b) *The Social Amplification of Risk*. China Labour & Social Security Publishing House, PP.4-5.
- Nick Pidgeon, Roger E. Kasperson, Paul Slovic. (2010c) *The Social Amplification of Risk*. China Labour & Social Security Publishing House, PP.163.
- Pan Fu. (2007) *the Social Risk Study*. Huazhong University of Science and Technology.
- Rong Zhi. (2012) *the Public Crisis Governance Framework of Risk Prevention: Model and Apply*. *Exploration*8,63-64.
- Sha Yongzhong, Zeng Xiaofang. (2013) *An analysis on the Evolution Process of Xiamen Mass Event: from the perspective of Grounded Theory*. *Lanzhou University Journal*7,97.
- Simon A. Booth (1993), *Crisis Management Strategy*, London: Routledge.
- Ulrich Beck. (2004a) *Risk Society*. Yin Lin Press, PP.4-11.
- Ulrich Beck. (2004b) *Risk Society*. Yin Lin Press, PP.15-57.
- Wilson, R. and Crouch, E. (1982) *Risk/ Benefit Analysis*. Cambridge, MA: Ballinger Publishing Co.
- Wynne, B. (1992) *Risk and Social Learning: Reification to Engagement*. S. Krimsky and D. Golding (eds.) *Social Theories of Risk*. Westport CT: Praeger, PP.275-279.
- Zhang Haibo. (2006) *Risky Society and the Public Crisis*. *Jiang Hai Journal*2,112-117.
- Zhu Demi, Ping Huiyan. (2013) *On Conversion between Legal Right and Legal Duty*. *Nanjing Social Science*7,61.