

**IMPACTS OF ENVIRONMENTAL MASS INCIDENTS:
A COMPARATIVE ANALYSIS OF THREE CASES IN CHINA**

**A Thesis Presented to the Faculty of Architecture and Planning
COLUMBIA UNIVERSITY**

**In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Urban Planning**

by

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May 2016

ABSTRACT

Public participation in the environmental issues is gradually becoming a part in institutional and policy design in China. In practice, however, its implementation and enforcement cannot be guaranteed for various reasons. Under an unsound participatory mechanism, environmental mass incidents represent an extreme form of environmental public participation. The study evaluates the impacts of environmental mass incidents by comparing three representative cases. Four dimensions are emphasized in this study, including: (1) the nature and benefits of the infrastructure projects, (2) the causes of the environmental mass incidents, (3) the primary players leading the environmental mass incidents and their performance, and (4) the media's role. Overall, the decision makers are supposed to adaptively empower people through public participation in environmental decision-making, and to achieve a balance between concessions and control.

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LIST OF ABBREVIATIONS

BBS	Bulletin Board System
CCP	Chinese Communist Party
CCTV	China Central Television
CPPCC	Chinese People’s Political Consultative Conference
EIA	Environmental Impact Assessment
ENGO	Environmental Non-governmental Organization
EPL	Environmental Protection Law
GDP	Gross Domestic Product
NDRC	National Development and Reform Commission
NIMBY	Not in My Backyard
PX	Paraxylene
SEPA	State Environmental Protection Administration
UNESCO	United Nations Educational, Scientific, and Cultural Organization

1 INTRODUCTION

The process of rapid urbanization in China is impressive. Population has increased exponentially, as has people's living standard, industry output, and other measures of development. But the flip side is the steady exhaustion of resources and destruction of the environment. After years of sacrificing the environment for economic growth, environmental damage is now a key issue. Environmental mass incidents in China have increased at an alarming rate over the past decade. By "environmental mass incidents", I refer to the incidents caused by environmental issues, with 100 or more participants.

There is growing evidence that the Chinese public is becoming increasingly concerned about environmental issues. A common complaint is that the public is always deprived of their requirements for transparency and accountability in environmental decision-making, particularly in the establishment of infrastructure projects, which may have potential negative impacts on the ecological sustainability or the surrounding environment. It has been more than a decade since the adoption of the Environmental Impact Assessment (EIA) Law. New articles concerning public participation and information disclosure in environmental issues have also been gradually added in the process of legal changes. However, many Chinese people still find it to be vague. In this context, an increasing number of people from all walks of life in China have argued for their access to environmental participation.

Behind the upsurge of environmental mass incidents, we can see the increasing desire for

environmental participation among the Chinese people, which is undoubtedly a reflection of the people's pursuit towards democratic institutions and a well-developed civil society. However, as a nondemocratic society, China has long been addressing environmental issues through excluding public participation. Given the increasing importance in effective environmental governance, public participation is gradually becoming a part in institutional and policy design. Nevertheless, as others have recognized, the ultimate impacts of public participation in environmental issues will depend on its implementation and enforcement, something that is not assured in the view of the ongoing challenges which are faced by China's environmental governance system. Environmental mass incidents are an unconventional form of environmental public participation, representing an extreme way of expressing public will, which generally occur when regular channels of environmental participation are blocked. In this sense, a careful evaluation of the impacts of environmental mass incidents is essential and urgent for a better understanding of the gap between the expectation of the public participation and the real achievements. Based on this, we can get more ideas about how to facilitate environmental participation, and ultimately, progress towards a sound civil society.

A large amount of the current literature touches upon public participation in environmental issues through the lens of legislation, examining its scope and timing in all kinds of environmental laws in China. Even though the country has endorsed public participation as a political principle and scholars did excellent work on that, in practice, the key problem is that the government does not effectively implement environmental laws and enforce those that are

already on the books. Therefore, there are relatively few cases where public participation has been studied empirically in China. Some literature does discuss public participation in environmental issues in practice, but most of the articles only evaluate the participatory process, rather than the outcome in certain cases. Environmental mass incidents are an emerging form of environmental public participation in China, and to date there has been no systematic examination of whether participation in environmental mass incidents was a success or a failure by evaluating both short-term and long-term effects. To bridge the gap, my study focuses on the impacts of environmental mass incidents, and asks whether they can really make a difference, and its extent.

The study looks into the impacts of environmental mass incidents from the context of three representative cases in China, in which environmental mass incidents contribute to either the immediate responses by the authorities to a proposed project with potential negative environmental impacts or the long-term monitoring and systematic solutions to contemporary environmental decision-making process. The Shanghai Maglev Project was cancelled, and the government promised not to implement it without the agreement from the local communities. The Xiamen PX Project was forced to relocate, owing to the citizens' strong opposition. The Nu River Dams Project in Yunnan Province was called to a halt under the pressure of environmental non-governmental organizations (ENGOS) in 2004, but it was reopened by the State Council in 2013.

In particular, this study attempts to answer two questions, and to examine several related

propositions. First, what are the major factors that influence the impacts of environmental mass incidents? Second, how and to what extent do they exert their influences?

Since the affecting factors are likely to interact with each other, and the impacts of environmental mass incidents are the joint effects of multiple factors, I conclude that the possible affecting factors may include: (1) the nature and benefits of the infrastructure projects, (2) the causes of the environmental mass incidents, (3) the primary players leading the environmental mass incidents and their performance, and (4) the media's role. All these factors enter into the equation of the impacts of environmental mass incidents.

My findings fill the gap in the empirical study of public participation, and contribute to a comprehensive understanding of affecting factors on the impacts of environmental mass incidents. With this knowledge, people can better involve themselves in the environmental participation; the government officials can see better what the challenges of public participation in practice are, and come up with strategies on how public policy implementation of public participation should be guaranteed; the ENGOs and media can also get more ideas about the ways to facilitate environmental participation. Thus, we can progress towards a well-developed civil society.

The study begins with a background on the definition of environmental mass incidents, and an explanation of the regulatory framework of public participation in environmental planning of China in the next section. The third section is literature review, covering the conceptualization

of public participation in the Chinese context, and diverse discussions about public participation, both as a political principle and in practice. The fourth section describes the detailed methodology and data used in this study. Then, in the fifth section, analytical narratives of three cases of environmental mass incidents are provided. The sixth section first provides a comparative case analysis from four dimensions of evaluating the impacts of environmental mass incidents, and then, critically discusses their interconnection, to present the whole picture of the analysis. This is followed by further reflections and insights in the seventh section. Finally, the conclusion summarizes the study, and provides some policy implications in facilitating public participation in future environmental decision-making.

2 BACKGROUND

“Environmental mass incidents” derives from a broader term of “mass incidents”. Mass incidents are officially defined by the Chinese Communist Party (CCP) as “any kind of planned or impromptu gathering that forms because of internal contradictions, including mass public speeches, physical conflicts, airing of grievances or other forms of group behavior that may disrupt social stability (Ye and Lu, 2009).”

People’s environmental awareness usually emerges when a society has reached a high stage of economic development (Tong and Lei, 2010). Since the turn of the 21st century, mounting concerns over social protests induced by environmental disputes are reflected in the emergence of the term “environmental mass incidents” in the public discourse of China. According to Pan Yue, the Vice Minister of the State Environmental Protection Administration (SEPA), there has been an annual rate of 29 percent increase in environmental mass incidents since 1996 (Tong, 2013). Statistics from “2012 Mass Incident Research Report”, published by the Legal Daily, reveal that environmental rights defense has become one of the six main causes of mass incidents (*Figure 1*).

In the Annual Report on China’s Rule of Law No.12 (2014), which examined the events that occurred between 2000 and 2013, “environmental mass incidents” are categorized as incidents caused by environmental issues with 100 or more participants (Li and Tian, 2014). They are open expressions of collective disagreement with the governments’ decisions which challenge

a government’s legitimacy (Mitsztal, 1985).

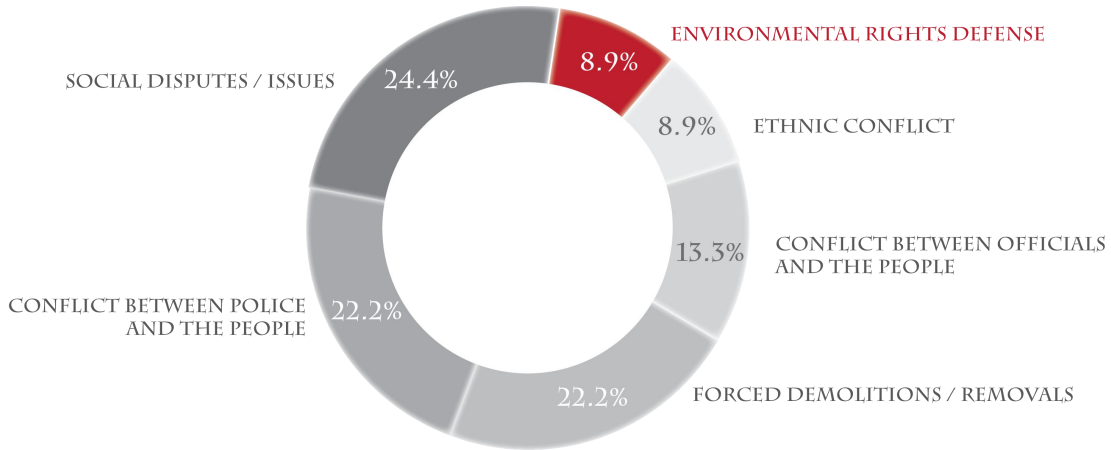


Figure 1 Causes of Mass Incidents

Source: Legal Daily, 2012. Graphed by the Author

Along with the emergence of environmental mass incidents over the past decade, a regulatory framework of public participation in environmental planning has gradually come into being in China. The country's main legislation on environment is the Environmental Protection Law (EPL) of 1989¹, which contains general provisions for pollution control, environmental impact assessments (EIA), and related policies. However, at that time, public participation was not required in the EIA procedures. After several years of wrangling and four formal readings, the new EPL² was adopted in 2014, which was more than two decades after the prior law passed.

The Environmental Impact Assessment Law adopted in 2003³ first made public participation a

¹ Environmental Protection Law of the People’s Republic of China (1989) 中华人民共和国环境保护法（1989）

² Environmental Protection Law of the People’s Republic of China (2014) 中华人民共和国环境保护法（2014）

³ Environmental Impact Assessment Law of the People’s Republic of China (2003) 中华人民共和国环境影响评价法（2003）

required component of the EIA process. The law also prescribed the time and approach of public participation, as well as the methods of handling consultation results. For instance, as stated in Article 21, for infrastructure projects which may impose significant environmental impacts, the construction entity shall seek the opinions of the public by holding demonstration meetings, hearings, or by any other means, before submitting the construction project for examination and approval.

In 2006, China strengthened its EIA system by promulgating the Interim Methods for Public Participation⁴. It provided detailed arrangement of information disclosure standards, public participation process, consultation methods, and the methods of handling consultation results. It was the first document that clearly regulated public participation in EIA for China.

The Regulation on EIA of Planning, issued on 2009⁵, set more specific rules on public participation in the process of planning. It clarified the preparation, review, and follow-up assessments of EIA documents and the legal liabilities involved (Wang, 2011). China's EIA system also raised the requirements on the disclosure of environmental information⁶ to ensure the public's rights of knowing.

⁴ Interim Methods of Public Participation in Environmental Impact Assessment (2006) 环境影响评价公众参与暂行办法 (2006)

⁵ Regulation on Environmental Impact Assessment of Planning (2009) 规划环境影响评价条例 (2009)

⁶ Methods of Environmental Information Disclosure (Trial Version) (2008) 环境信息公开办法 (试行) (2008)

In 2012, a notification on enhancing more environmental protection information⁷ was published, in order to prevent public incidents caused by environmental issues. Along with that, a notification on enhancing environmental risk prevention and strengthening environmental impact assessment management⁸ was also published, to ensure the public's rights of participation and their supervision in environmental issues. Furthermore, many provincial administrative units in China have also developed local regulations to standardize the implementation of the national laws and regulations.

Since there is already a regulatory framework of environmental public participation under constant adjustment and improvement, how can such an unconventional form of public participation as environmental mass incidents still widely exist and be a challenging issue in China? Why does the public not voice their opinions through proper channels? The next section of literature review will provide some insights and understanding of environmental participation, both as a political principle and in practice.

⁷ Notification on Further Improving the Environmental Information Disclosure (2012) 关于进一步加强环境保护信息公开工作的通知（2012）

⁸ Notification on Strengthening Environmental Risk Prevention and Implementing Strict EIA Management (2012) 关于切实加强风险防范严格环境影响评价管理的通知（2012）

3 LITERATURE REVIEW

3.1 The Conceptualization of Public Participation in the Chinese Context

The first step to understand China's environmental public participation is to have a better sense of what the state considers as public participation in the Chinese context. Some studies have looked into the notion of "public participation". In principle, public participation is an acknowledgment that "the public has the right to be informed early and to be pro-actively involved in a meaningful way in proposals which may affect their lives and livelihoods" (Enserink and Koppenjan, 2007) .

The Chinese government and Chinese Communist Party (CCP) have long established the well-known principle of "mass participation." Nevertheless, it has some essential differences from the notion of "public participation" in international discourse (Zhao, 2010). Zhao interprets that in the Chinese context, it imposes an obligation on the people to cooperate with and support the government in the implementation of policies, plans or projects, while the western notion of public participation emphasizes the people's rights to be informed, consulted and heard in the decision-making process. In other words, the government is not only responsible for informing people about the proposed policies, plans or projects and supervising their implementation, but also is obligated to ensure public access to information, decision-making, and judicial redress. In the western countries, Arnstein's (1969) article on public participation is one of the best known. "There is a critical difference between going

through the empty ritual of participation and having the real power needed to affect the outcome of the process.” She also puts forward her famous ladder of public participation in this article (Figure 2). Plummer and Taylor (2004) reinterpreted Arnstein’s ladder for the Chinese context, going from notification to initiative (Figure 3). This form of public participation can merely be interpreted as confirmation. Xia (2005) also advocates that, for the government, it would require moving from an orientation of “leading” the public to an orientation of “serving” the public; from an understanding that the public has a “duty to participate” to an understanding that the public has a “right to participate”.



Figure 2 Ladder of Public Participation in Western Countries

Source: Adapted from Arnstein, 1969, p.252



Figure 3 Ladder of Public Participation in China

Source: Plummer and Taylor, 2004, p.42

Such difference, however, may not necessarily lead to an insurmountable gap. Chen, Zhang, and Ekroos (2007) explain that theoretically, there is no conflict between the international notion of public participation and China’s political regime, where the country is purportedly for

the people and where the government represents the people's wishes.

3.2 Environmental Public Participation as a Political Principle

When examining the environmental politics in China, one topic that has attracted scholarly attention from early on is public participation as a formal institutional mechanism in the enforcement of environmental regulations (Brettell, 2001; Tilt, 2007; Warwick and Ortolano, 2007). Since China's promulgation of its first Environmental Protection Law in 1979, an extensive body of environmental laws, regulations, and policies have been continually added to the official books (Yang, 2005). National environmental regulators, in attempt to mitigate the environmental impact of China's rapid urbanization and development, have shown an unusual willingness to incorporate public participation into their regulatory regime and dialogue (Alford and Liebman, 2000). Along with further institutional reform taking place in the environmental protection sector, new participatory mechanisms have been adopted, including the public hearing component of the Environmental Impact Assessment Law, regulations related to environmental information transparency and disclosure. As Zhu and Ru (2008) demonstrate, such reforms have provided new legal channels for the public to get their voices heard in the course of environmental decision-making, and are expected to bring about more significant changes in the near future.

With China's endorsement of public participation as a political principle and formulation of laws and regulations accordingly, some scholars have claimed that there is a growing "rights

consciousness” in contemporary China (O’Brien and Li, 2004). However, due to the significant difference in conceptualization of rights between China and the West, some other scholars label this phenomenon to be the result of a growing “rules consciousness” (Perry, 2009). According to Li (2010), the former implies citizen equality with rule-makers based on constitutional and antecedent principles. In contrast, the latter is articulated via claims on rule-enforcers to enforce faithfully the existing rules within the current system.

As environmental protection is pushed forward by the government first, for a long period of time, public participation was passive, and there were problems such as poor environmental awareness, low participation, incomplete systems, and difficulties in the development of social environmental organizations (Clarkson, Fang and Li, 2013). This is because public participation in decision-making rarely occurs naturally, and some form of legislation is needed to procure its existence.

Also, another dominant view in literature is that the key and highly desirable issue for scholars and practitioners is to find the ways to make the environmental policies more effective. For instance, O’Faircheallaigh (2009) states that while public participation is widely documented to be a valuable component of the EIA process, debate continues about how to undertake it. Similarly, as Li, Ng and Skitmore (2013) demonstrate, even though the law has followed the principle of public participation in EIA, the procedural rights of the public cannot be taken for granted. The difficulty and frustration encountered by the environmental protection agencies in implementing the EIA is mainly due to the pressure from the local governments and powerful

business interests (Yang, 2009). The current level of participation in the infrastructure projects is quite limited, particularly in the crucial earlier stages.

3.3 Environmental Public Participation in Practice

As previously mentioned, the Chinese society lacks a meaningful institutional framework to allow public participation, even in the area of environmental protection (Li, Liu and Li, 2012). For this reason, another crucial theme for the studies of China's environmental public participation focuses on a more practical level, looking into the socio-cultural and the society-related factors in the process of participation. This is also where the studies conducted by Chinese scholars has increased rapidly in the past few years.

The occurrence of environmental public debates and incidents indicates the rise of a critical environmental discourse, referred to as the "Chinese green public sphere" (Sima, 2011; Yang and Calhoun, 2007). Habermas (1991) initially defined "public sphere" as "a domain of our social life in which such a thing as public opinion can be formed". Access to this domain is "open in principle to all citizens" who may "assemble and unite freely, and express and publicize their opinions freely". Torgerson (2000) raised the notion of "green public sphere", which fostered pluralistic views about environmental issues. Chinese green public sphere is serving as an example of a variety of new forms of public engagement in contemporary China.

According to Yang and Calhoun (2007), environmental NGOs play a central role in producing this type of critical discourse. Mass media, the Internet, and "alternative media" are the main

channels of communication. The emergence of a green public sphere demonstrates the new dynamism of grass-roots level political change. Similarly, Chan and Zhou (2014) point out that while the environmental laws may set a minimum requirement of public participation which is still rather limited, there is nothing to prevent the networks of various civil society forces, such as academics, journalists, and some other associations, from doing more. They work together to influence public opinion, create media exposure, lobby government agencies, and put public pressure on both the central and local governments.

Some studies have mapped and analyzed environmental NGOs, examining their various origins, development trajectories, and organizational characteristics (Ho, 2001; Yang, 2005; Schwartz, 2004; Zhan and Tang, 2013). Though there is consensus that environmental NGOs are growing rapidly in China, scholars disagree on the interpretation of them in terms of their autonomy and the nature of their interaction with the state. Some point out that grassroots environmentalism in China is fragmented and highly localized so that it's unable to mobilize lasting demonstrations to oppose decision-making (Lu, 2007). Some argue that the Chinese environmental NGOs have been able to achieve their goals and maintain their autonomy (Saich, 2000; Turner, 2004).

Likewise, media also has enormous impacts on environmental public participation. In general, The Chinese media was traditionally considered as both the mouth and tongue, and the eyes and ears of the ruling Chinese Communist Party (CCP). China does not have a free-wheeling media as a result. The reason why we can see the growing media coverage of sometimes even

very contentious environmental issues is that media have undergone “de-ideologization, differentiation, and commercialization” in the reform era. Media is not only eyes and ears of the Communist Party and government, but also a bridge linking Party, government and the people (Zhao, 2000). Besides, with the explosive expansion of Chinese netizens, Internet is increasingly crucial as a platform for environmental public participation.

To sum up, the primary values and objectives of public participation in the Chinese context are quite different from those in the western societies, and the authorities are supposed to treat public participation as a right rather than a duty of the public. A large amount of literature examines environmental public participation as a political principle, indicating an evolving environmental legal system. However, not enough attention has been paid to the environmental participation in practice, especially in terms of its function and actual effects. To fill the gap, my study focuses on discussing the factors that influence the impacts of environmental mass incidents. Despite their unconventionality, such incidents represent a notable form of environmental public participation. The next section will elaborate on the methodology and data used in this study.

4 METHODOLOGY AND DATA

4.1 Methodology

This study adopts a comparative case study method. By recounting three stories of environmental mass incidents with different results, I employ analytical narratives to elucidate the “key decision points” (Levi, 2002). I use the case study method because I want to cover the contextual conditions, which are highly pertinent to my study of environmental participation. Furthermore, by comparing three cases sharing a common focus, I find similarities, differences, and patterns across them, and the results would then strengthen the external validity of the findings.

In general, the occurrence of environmental mass incidents is hard to cover up, and would be publicized in various ways. Besides, environmental issues that could lead to mass incidents are more reflective of the acute social tensions in contemporary China. Based on these concerns, I identified three criteria for selecting the case studies: (1) the three cases have all been widely reported during a certain period of time; (2) scopes of the environmental mass incidents are at different levels, including community, regional, and national; and (3) the three cases occurred in the cities with different levels of economic development. Thus, for this study, I selected three representative cases of recent Chinese environmental mass incidents, which have to some extent influenced future environmental policy-making. In all three cases, individuals and groups organized themselves and worked together to voice their concerns and change the

decisions that would have negative environmental impacts.

The first case is the Shanghai Maglev Project, which mostly occurred at the community level. In December 2007, Shanghai Urban Planning Administrative Bureau announced an extension of its existing Maglev line further towards the city center. However, the project immediately met with heavy opposition from the local residents who feared perceived exposure to radiation and noise. In order to illustrate opposition and attract more attention, people who lived nearby began “strolling” on public places such as People’s Square. The project was finally cancelled by the Shanghai government. The second case, the Xiamen PX project in 2008, occurred at the regional level. PX (paraxylene) is a highly polluting petrochemical which is used to make the raw material needed for producing polyester film and packaging resin and fabrics. The proposed location of the PX plant was in a district with over 100,000 residents. Local residents in Xiamen were able to stage a successful mass protest to halt the PX plant's construction efforts, and these efforts have resulted in the plant being relocated. The third case is Nu River Dams Project that occurred at the national level. The project aimed to build 13 dams on the Nu River and produce more hydropower. In 2004, Premier Wen Jiabao called a halt to the project to order further impact assessments as required under a then new environmental law. Chinese green groups celebrated a rare victory. But the project was not truly killed. In 2013, the State Council decided to reopen controversial plans to dam the Nu River in Yunnan. Currently, the project is under construction. The comprehensive coverage of geographic scopes and developmental levels of these three cases make it possible to analyze the various situations of environmental

mass incidents.

The impacts of environmental mass incidents are not simply determined by a single factor. Rather, there exist multiple factors, and interactions among them are likely. The study emphasizes the following four dimensions as the affecting factors: (1) the nature and benefits of the infrastructure projects, (2) the causes of the environmental mass incidents, (3) the primary players leading the environmental mass incidents and their performance, and (4) the media's role. These four dimensions provide us with various perspectives for examining the affecting factors which facilitate the impacts of environmental mass incidents.

4.2 Data Collection and Analysis

Data of the study were collected mainly from academic papers, news reports, policy reports, legal documents, and publications by the ENGOs and other relevant institutions. The analysis of the data included identification of the affecting factors of the environmental mass incidents, the interpretation of people's statements or other communication, and the spotting of trends.

Particularly, when discussing the media's role, data were analyzed from two aspects: media-public interaction and media-government interaction. In accordance with the research theme, the study conducted a content analysis for Xinhua News Agency, Southern Metropolis Daily, and the Tianya Forum. The three newspapers and online forum were selected in this study to provide the government agenda, the media agenda, as well as the online public agenda respectively.

Xinhua News Agency is the government-controlled official news agency, and also the largest news gathering and dissemination center in China. It is generally considered to be the typical mouthpiece of the Chinese Communist Party (CCP). Its staff releases news information in eight languages every day, covering current affairs in finance, politics, economics, society and culture, and sports from China and the world. Southern Metropolis Daily is a market-oriented nonofficial media, sticking to the principle of investigative and independent reporting. It is considered to be the largest and most influential Chinese metropolitan newspaper, with a daily circulation of 1.75 million. The Tianya Forum, established in 1999, is the largest online bulletin board system (BBS) of China. It is extensively acknowledged as the most influential Chinese-language bulletin board for the Chinese netizens to express themselves and interact with each other.

The samples of all these media were collected from their electronic versions online. I accessed their webpages and used the key words “Shanghai Meglev”, “Xiamen PX” and “Nu River Dam” for an initial search in Chinese language. Also, one major consideration in studying agenda-setting effects is the time frame. I set the search parameters for one calendar year following the official announcement of each project. The search process yielded the data set for the study of the media’s role. A brief description is shown in *Table 1*.

The analysis proceeded in several phases. I coded each news article or posted message, and then grouped them into themes. I constructed the themes through close readings of each news article or posted message. The themes receiving the most coverage were identified to be the

main issues.

Table 1 Amount of Reports/Posts from the Three Media Sources

Media Source	Shanghai Maglev 12/01/2007-12/01/2008	Xiamen PX 03/01/2007-03/01/2008	Nu River Dams 08/01/2003-08/01/2004
Xinhua News Agency	8	17	1
Southern Metropolis Daily	3	7	2
Tianya Forum	8	374	12

Created by the Author

Then, for each case, I began to examine how reporting intensity on each theme differed across the media sources. I also checked the frequency of the themes appearing in Xinhua News Agency, Southern Metropolis Daily’s reporting and the Tianya Forum’s posted message, respectively. Also, I questioned the manner in which the intensity of media coverage changed through time. The last step of the content analysis was to compare the different roles of media in the three cases.

Having described the methodology and data, the next section will tell the stories of the three representative cases of environmental mass incidents in China.

5 THREE CASES OF ENVIRONMENTAL MASS INCIDENTS IN CHINA

The followings cases represent the most vigorous and aggressive participation in the environmental issues in China, and all have caught widespread domestic and international attention. Each of the three projects represents a unique situation, including opposition to proposed high-speed Maglev, large-scale chemical plants, and a series of dams. They occurred in different regions in China (*Figure 4*), with different causes, players, as well as different results. From a wider perspective, however, they jointly revealed a transforming trend for the Chinese society. More transparency and accountability are demanded by the public in environmental decision-making. What they insist on is not only to get their voices heard, but also to make a difference.

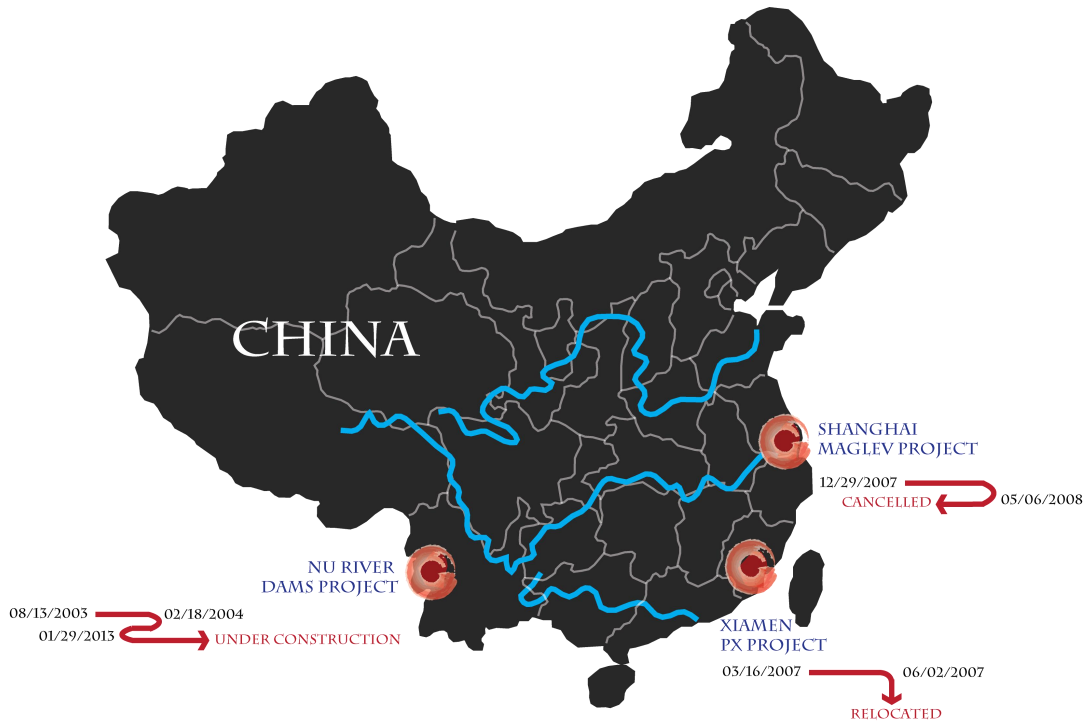


Figure 4 Three Cases of Environmental Mass Incidents in China

Created by the Author

5.1 Shanghai Maglev Project

Shanghai is the most dynamic and modern city of China. In preparation to host the 2010 EXPO, the megalopolis embarked on an overhaul to burnish Shanghai’s image as a global city. The environmental mass incident in the city was triggered by a plan to extend the city’s magnetic levitation train line (*Figure 5*). A 19-mile Maglev line opened as early as 2003, which was the only commercial Maglev in operation around the world. It was built with German technology, and the trains could reach the speed of 250 miles per hour (Chan and Taylor, 2008). On Dec 29, 2007, the Shanghai Urban Planning Administrative Bureau website published in a low-key manner its plan to extend the Maglev train, leading from the Pudong International Airport to Shanghai South Railway Station further into the city center to Hongqiao Transportation Hub. The length of the line was to be 31.8 kilometers (19.7 miles), with 1.6 million people living within 200 meters (656 feet) of the new proposed line.

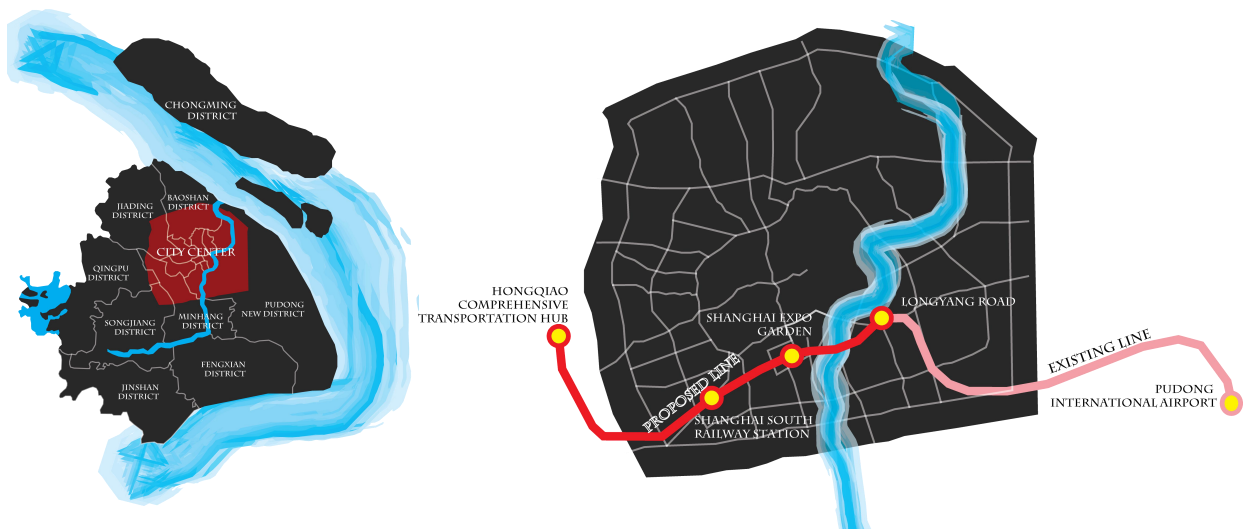


Figure 5 Location Map — Shanghai Maglev Project

Created by the Author

The announcement kept a three-week period for public comment, but was considered too short and lacking in transparency. Thousands of people living along the proposed line expressed serious concerns on the width of buffer zone and feared that the Maglev would emit magnetic radiation that could hurt their health. The Maglev extension plan was widely reprinted on online forums by the netizens, especially nearby inhabitants. Public concerns were immediately fermented. More people began to express their complaints in person to the local officials. A district office received over 5,000 petitioners within a single day (Grace, 2010).

However, these were largely ignored by the government officials. The inhabitants in the area affected by the planned extension were using their sophisticated organizational skills to grab whatever attention they can. In order to demonstrate their opposition, they used online forums and text messages to mobilize more nearby inhabitants to “take group walks” in the public places such as People’s Square, the site of Shanghai City Hall. There were large-scale “strolling” every day at a set time since January 1, 2008, asking the line to be moved away from the residential areas. On January 12, more than 1,000 people gathered outside the Shanghai City Hall. They shouted that it would be a noisy nuisance if the Maglev was constructed in their neighborhoods. They carried banners which claimed that the Maglev was harmful to their health. It swelled into the largest protest Shanghai had ever seen since 2005. Though the mass incident also triggered several violent outbursts from the authorities, and the police blocked off the People’s Square, the protest dispersed peacefully. No shots were fired, and the police did not arrest or hurt anyone.

Southern Metropolis Daily became the only Chinese mass media that reported this incident immediately afterwards, but protesters had little difficulty voicing their opinions via online forums and chat rooms. Failing to cover up this incident, the Shanghai government quickly responded on its official website, “There are people who want Shanghai in chaos. Now, some foreigners are playing up the Maglev project, spreading some malicious rumors. Some domestic people also follow them to make a fuss. Goodhearted people must not to fall into their trap.” Jiefang Daily, an official Chinese Communist Party (CCP) mouthpiece, called the incident “street politics”, and accused them of damaging social harmony in Shanghai (Xue, 2008). Afterwards, several major Internet media, including Sina.com, NetEase.com, and the government-controlled Xinhua News Agency, began reporting about it, which initiated a heated discussion online. With state television declining to report the demonstrations, one protester uploaded videos to YouTube with subtitles.

Facing this sensitive incident, the Shanghai authorities held emergency meetings to seek solutions. Then, Jiefang Daily posted several editorials, accusing various media of not being scientific or objective about the mass incident, and thus, caused disharmony in the city. Xinmin Evening News, a famous Shanghai-based mass media, also published several “scientific” articles about how Maglev was harmless. In addition, the government began to meet the representatives from the neighborhoods and set up a hotline to listen to the neighbors’ complaints (Sommerville, 2008).

Eventually, on March 6, 2008, the Mayor of Shanghai, out of the public pressure, announced that the project was still in environmental evaluation, and would not be completed in time for the 2010 Shanghai EXPO. The Shanghai government considered an alternative plan, where the Maglev might not even be built at all. So far, the project has not been implemented.

5.2 Xiamen PX Project

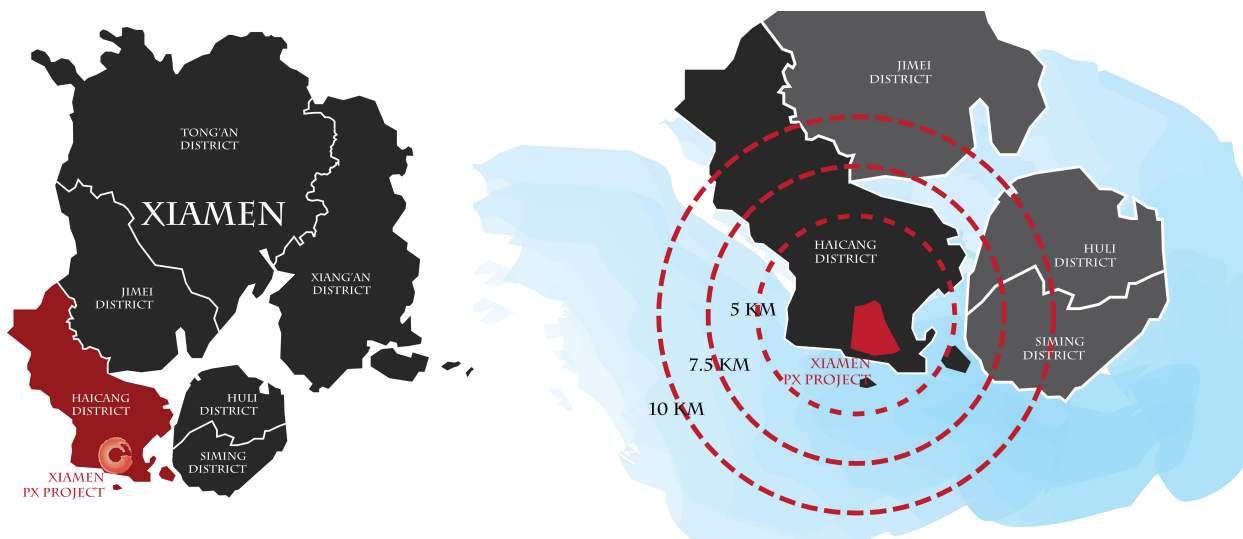


Figure 6 Location Map — Xiamen PX Project

Created by the Author

Urban industrial construction has also been a source of environmental mass incidents in the recent years. Located on the southeastern coast of China, Xiamen is a sub-provincial city of the Fujian Province, and one of the four original Special Economic Zones in China. However, citizens of Xiamen never expected that “PX (paraxylene)” would become the most popular word on the tip of their tongues. In November 2006, a large-scale chemical project for building

a PX plant in the city of Xiamen got the go-ahead from the National Development and Reform Commission (NDRC) and the State Environmental Protection Administration (SEPA) (*Figure 6*).

The project was intended to generate large amounts of revenues, as well as bring prestige to the local government officials. Under the auspices of the local government, the project progressed at a rapid pace. Nevertheless, the local government forgot a vital thing — the views of hundreds of thousands of citizens of Xiamen who would be most affected by the project.

In March 2007, six Chinese academicians from the Chinese Academy of Science jointly proposed their serious concerns about the potential risks that may be caused by the large-scale PX project that would be launched in Xiamen. Their proposal was supported by more than 100 deputies of the Chinese People’s Political Consultative Conference (CPPCC), and then attracted a large amount of coverage from the media, which triggered immediate anxiety among the public (Li, 2008). Articles concerning the PX project attracted tens of thousands of netizens in Xiamen’s major online forums. Not surprisingly, high-level officials in the local government decided to ignore the CPPCC proposal, and attempted to keep the news media silent through political control.

With the help of the social media, however, the citizens of Xiamen effectively shared information about the alleged misdeeds of the government officials, and successfully organized civic actions against them. They had heated online discussions, which strengthened the public belief. Words such as “Give me back the blue sky”, and “I love Xiamen, no PX”, were among the

popular titles in the major online forums. After late May 2007, millions of citizens of Xiamen began to oppose the highly contaminating PX project via text messages (Tong, 2013). Moreover, knowing that it would be impossible for the local government to approve an application for the protest, the citizens of Xiamen used Internet and text messages to call on people to take to the street. One of the most popular text messages read: “For the sake of our future generations, take actions! Participate among 10,000 people, on June 1 at 8 am, across from the municipal government building! Wear yellow ribbons! Pass this message on to all your Xiamen friends!”

Confronted with this circumstance, the Xiamen government decided to temporarily halt the construction on May 30, pending further environment review. With great suspicion that it was merely a delaying tactic, the citizens decided to protest as scheduled. Eventually, the citizens of Xiamen organized a peaceful protest to express their strong dissatisfaction and firm opposition to the PX project. On June 1, 2007, over 20,000 people throughout the city gathered in front of the Xiamen City Hall on Hubin Road, wearing yellow ribbons and holding up banners (Liu and Zhao, 2010). The mass media did not report this environmental mass incident, but large numbers of online “citizen journalists” flocked to Xiamen to cover the protest.

The official position on the PX project changed significantly after the environmental mass incident. A planning EIA for the whole city was demanded by SEPA. An abridged version of the EIA report was made available for public opinions in late November. Two weeks after the EIA report was released to the public in December 2007, the Xiamen government held a high-profile public hearing on the proposed project to hear the citizens’ opinions. Over 100

citizens were invited, and ninety percent of the public representatives opposed the project.

Most of the market-oriented mass media was barred from attending the public hearing due to the space limitation, but many official media were admitted.

Finally, in March 2008, after a series of debates and public hearings, the local government officials finally announced that the PX project would be relocated to Zhangzhou, a less densely populated city in the Fujian Province.

5.3 Nu River Dams Project

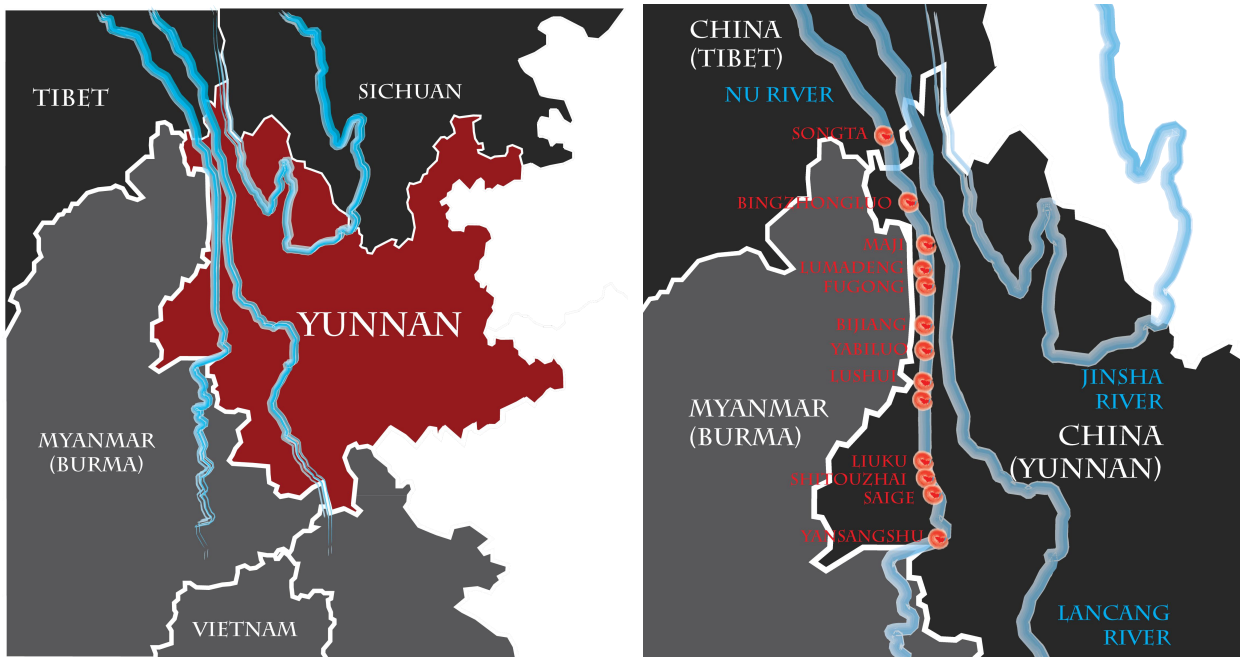


Figure 7 Location Map — Nu River Dams Project

Created by the Author

In August 2003, the NDRC approved a plan submitted by the Yunnan provincial government for the construction of a series of dams on the Nu River, one of the last free-flowing rivers in China

(Figure 7).

Nu River flows south from the Qinghai-Tibet plateau through western Yunnan Province into Burma and stretches along the Thai border before entering into the Andaman Sea. However, at the assessment panel meeting held by the NDRC, an official from the SEPA claimed that the project may affect the ecological value and nature conservation of the river, and thus refused to sign the plan (Chan and Zhou, 2014). Similar to the Three Gorges Dam project in the 1990s, the debate between developing hydropower and preserving the natural heritage on Nu River was intense at the national level.

As soon as some ENGO activists learned about the decision with regard to building dams, they began to mobilize the journalists to report on this issue, enlist support from celebrities and international ENGOs, and organize exhibitions of Nu River, so as to raise the public awareness. News about this battle overwhelmed the media abruptly, and the debate thus entered the public sphere. In December 2003, a 45-minute television documentary was prepared by China Central Television (CCTV), which has presented “both sides” of the debate (Liebman, 2009). For the “pro-dam group”, they emphasized the economic benefits the project would bring. The NDRC, a central-level agency charged with economic development, considered developing the Nu River hydropower part of its responsibility. The Yunnan provincial government and its local governments regarded the project to be a significant strategy of poverty alleviation, since it could bring a great deal of investment and promote infrastructure development. Huadian was the primary investor of the project. As one of the four national power generation companies in

China, it tried to expand its market share. For the “anti-dam group”, their primary concern was the environment. The responsibility of SEPA is environment protection. ENGOs and environmental activists also spare no efforts to protect the Nu River.

With the media’s coverage of this project, an increasing number of ENGOs had become concerned, and a close ENGO network started to emerge. In the following months, ENGOs and environmental activists initiated an information campaign, seeking to spread the concerns about and amass the growing opposition to the Nu River Dams Project via the domestic and foreign media. With the participation of different interest groups, the Nu River Dams Project has become a highly complicated and controversial issue. In February 2004, twenty journalists, activists and scholars from Beijing and Kunming, the capital city of Yunnan Province, went on an investigative tour of the Nu River, forming a civil society coalition of sorts. After returning from the trip to the Nu River, the group worked hard to put together an exhibition of their Nu River photographs (Li, Liu and Li, 2012). However, the news reports for the exhibition were cancelled due to the pressure from the central government. Instead, on March 14, the International Day of Action for Rivers, the group launched a website titled “ Loving the Nu River”.

On February 18, 2004, while the anti-dam group was still in the Nu River, Premier Wen Jiabao called for a halt to the project, and stated that “For a large-scale hydropower project that concerns environmental issues and arouses much attention and different opinions in public such as this one, we should study it carefully and make a decision based on scientific evidence

(Yardley, 2005).” This provided the ENGOs’ campaign with a new focal point. Although it was considered to be the first time when public opinion had ever had an effect on high-level environmental decision-making, ENGOs and environmental activists also recognized that the suspension may only be temporary, and thus continued to advocate their position. Since 2005, the pro-dam group conducted a more comprehensive EIA, following the Premier’s instruction. Simultaneously, ENGOs and environmental activists began to advocate the formal public participation in the decision-making process. But the EIA process occurred behind closed doors. In August 2009, more than 90 ENGOs, academicians, and over 450 individuals signed an open letter titled “Request for the Nu River Hydropower EIA Report to be Made Public in Accordance with Law.” However, this still failed to open up the decision-making process.

As might have been expected, eight years later, in 2013, the State Council decided to reopen the controversial project. “Hydropower bases on the Nu River and the upper reaches of the Jinsha River and Lancang River will be kicked off in an orderly manner”, according to the document posted on the central government’s website (State Council of China, 2013).

So far, we have learned considerably about the three cases. Then, what are the major factors that influence the impacts of these environmental mass incidents? How and to what extent do they exert their influences? The next section seeks to answer these main research questions.

6 FOUR DIMENSIONS OF EVALUATING THE IMPACTS OF ENVIRONMENTAL MASS INCIDENTS

Not all these environmental mass incidents was considered to be successful. This section will turn to explain the impacts of environmental mass incidents based on four dimensions, including (1) the nature and benefits of the infrastructure projects, (2) the causes of the environmental mass incidents, (3) the primary players leading the environmental mass incidents and their performance, and (4) the media's role.

6.1 The Nature and Benefits of the Projects

The three cases led to three different results. The impacts of environmental mass incidents derive not only from the players' performance throughout the participation process, but they are also largely relevant to the regional context, site information, as well as the potential benefits to be provided by the project. The nature of a project determines the flexibility of changing the decision.

There is no doubt that all three projects had their merits — for example, they could promote economic growth (*Table 2*). Planning for these projects appeared to be right. Thus, the NDRC had given the approvals to all these projects and their decisions were all backed up “in principle” by the SEPA. The completions of these projects were also expected to bring prestige to the local governments. The local governments in China, for their part, are under great pressure to hit the growth target and contribute to the nation's economy.

Table 2 Characteristics of the Projects

	Shanghai Maglev	Xiamen PX	Nu River Dams
Scope of impacts of the project	Community	Regional	National
Administrative level of the project site	Direct-controlled municipality National central city	Sub-provincial city Special economic zone	Autonomous prefecture National-level impoverished counties
Investment (US dollars)	4 billion	1.5 billion	13.58 billion
Expected revenues per year (US dollars)	Unknown	12.3 billion	5.4 billion

Created by the Author

In Shanghai, the Maglev built in 2003 has already become the first inner-city Maglev line in commercial service in the world as well as the fastest inner-city train. But the Shanghai government decided to extend the line and wanted it to do much more for the EXPO.

Xiamen government proceeded with the project by designating the primary use of the Haicang District as a “petrochemical industrial district” on the city’s master plan. The chemical project was reported to add about 80 billion RMB (nearly 12 billion US dollars) worth of industrial output annually, which is equivalent to 1/4 of Xiamen’s GDP.

The third case, Nu River Dams Project, occurred at the national level. Its significance to China was considered almost equivalent to a second “Three Gorges⁹”. In 2000, the NDRC officially

⁹ The Three Gorges Dam on the Yangtze River and tributaries is the largest hydropower project in the world. It sets records for the number of people displaced, number of cities and towns flooded, and the length of its reservoir. The Chinese government regards it as a historic engineering, social and economic success.

launched the Great Western Development Strategy¹⁰ in the Tenth Five-Year Plan, which provided incentives for the development of hydropower. The Nu River Dams Project, as a key component of the campaign, aimed to narrow the gap between the less developed areas of western China and the wealthy east. The series of dams would produce 102.96 billion kWh per year. This kind of “clean” energy would also help China fulfill its low-carbon promises¹¹. The value of the electricity generated per year would be 36 billion RMB (about 5.4 billion US dollars) when completed. The central and local governments’ coffers would grow tremendously (Meng, 2011).

China is an unevenly developed country. Over a long period of time, almost all the well-developed regions are located along the east coast, with little shift in wealth distribution at the regional level. A region can be considered to be in the less-developed category if its per capita GDP is below the national average. The regional disparity is huge. The Maglev Project was proposed for Shanghai, which represented metropolitan China, and was comparable to some well-known cities of developed countries. The hustle and bustle could be overbearing at times. The PX Project was supposed to be located in Xiamen, a well-developed coastal city in China as well. Despite being relatively small, it was a popular tourist destination and one of the most leisurely cities of China. However, the proposed site for the Dams Project is Nujiang Lisu

¹⁰ The Great Western Development Strategy is China’s first comprehensive regional development plan which intends to boost the economies of the western provinces. It was launched by the State Council in 2000.

¹¹ The Chinese government has promised to have got 15% of its power from the renewable sources and cut emissions of carbon which is relative to economic growth by 40% to 45% by 2020, when compared with 2005 levels.

Autonomous Prefecture, which is perhaps worse than many third world countries. Most of the settlements in Nu Watershed are quite poor. Some 57,000 households were living in shelters made of sticks and straw, and all four counties of Nujiang Lisu Autonomous Prefecture were on the list of national-level impoverished counties in 2004 (Statistical Bureau of Yunnan Province, 2004).

The Shanghai Maglev Project was promoted for the 2010 EXPO, considered as the show time for China. An alternative plan for this project was to build a high-speed rail, linking almost at the same speed as the Maglev, but at half the cost (Grace, 2010). There would be no complaint about the harmful radiation, but building a high-speed railway was nothing new. High-speed trains run in Paris, in Japan, and all over the world all the time. What China desired was not to simply catch up with them, but to leapfrog over them. Shanghai needed the shiny Maglev Project to showcase at the EXPO and to add it as an achievement.

However, for the Nujiang Lisu Autonomous Prefecture, or even for the Yunnan Province, the Nu River Dams Project had a weighty mission. The hydropower industry actors and the local government spared no effort to contribute to the dams project which would bring not only electricity to the extremely rural areas in Nujiang Prefecture and beyond, but also the infrastructure investment and poverty alleviation. Some parts of the province heavily relied on the subsidies from central government. Dam-building would provide job opportunities. Moreover, the compensation for the local inhabitants would be tens of thousands of RMB per person, according to the law. If they could receive that as promised, it would definitely help

alleviate their poverty, as it was an astronomical figure in comparison with their yearly income.

The impacts of environmental mass incidents depended to a large extent on the nature of the projects. The decision makers for every project would first consider the broader context. Then, they would turn to decide their tolerance of interference brought about by the mass incidents. For them, the flexibility of changing their minds differs in different scenarios. In Shanghai, as the clock ticked down toward the 2010 EXPO, the decision makers finally made a compromise under the pressure of the public to cancel the flamboyant Maglev Project. This was perhaps because, other than the image project, there are too many things that the city can brag about, from its eye-catching architecture to its excellent urban services. Or perhaps the government realized that “better city, better life¹²” lies not only in its infrastructure, but also in the city’s human concern. However, for a project at the national level, like in the case of the Nu River Dams Project, the decision of dam-building was viewed as a concrete and critical step towards the national integration, and even out of China’s regional economic disparities, which would be a significant victory. Thus, it is easy to understand why decision makers would finally go ahead with their original decision, despite being under immense pressure from the public.

6.2 The Causes of the Environmental Mass Incidents

How did the three infrastructure projects that “have completed all procedures in line with environmental laws and regulations” and which would perhaps bring impressive GDP growth

¹² “Better city, better life” is the theme of 2010 Shanghai EXPO.

become the targets of public criticism? It is remarkable that in none of these cases was the public informed in advance about the planning of the infrastructure project, which was one of the very basic causes of environmental mass incidents. People argued that these non-transparent decision-makings were signs of improper administration, because there are relevant chapters in the environmental laws which is concerned about an individual's rights to know, to supervise, and to participate. Thus, it can be seen that the access to environmental participation cannot be taken for granted in China. Under such circumstances, people's desire to defend their rights grows even stronger. In Shanghai, the government only gave the neighbors a three-week window to stop the Maglev Project. The government officials were besieged by the petitioners as well as by phone calls, letters, and emails. In Xiamen, large amounts of citizens sent letters of complaint to the NDRC, SEPA, as well as the local government. When these officials did not respond, the environmental mass incident was born. All the public hearings coming afterwards were completely asked by the public as reimbursements.

In the Xiamen PX case, according to the government, PX itself is not particularly toxic, and there were few reports worldwide about environmental harm caused by PX. Despite this, some Xiamen citizens argued that the statement was touted to back the political goal of clamping down on public's dissidents. They did not trust the government because, in the past, the government did this time and again under similar situations. Some other people, while agreeing with the chemical's low toxicity, said that they were opposing the site selection and

worrying about the way the PX plant might be managed, rather than the chemical itself. The Xiamen PX plant's proposed site is only 7 kilometers (4.34 miles) away from downtown Xiamen and 4 kilometers (2.49 miles) away from a middle school and its dormitory, which is home to 5,000 students. There are more than 100,000 people living within a 5-kilometer (3.11-mile) range. The nearest residential area is less than 1,500 meters (0.93 miles) away. Western Xiamen Sea and Jiulong River are within a 10-kilometer (6.21-mile) radius (Yang, 2009). Thus, plenty of citizens were opposing the conclusion of the EIA. Any natural disaster such as a tsunami or typhoon, would make the project to be a massive human disaster. Besides, poor management was what people really feared. The project would cause a highly poisonous explosion and leakage hazard, once any serious accident occurred.

Another cause comes from the public's concern about their asymmetrical rights and obligations. Sometimes it is necessary to push a number of infrastructure projects in the process of modernization, and there is always a trade-off between economic development and environmental protection. However, as public goods, when the non-radiation environment in Shanghai, the clean air in Xiamen, and the water resource in Nu River are deprived with the construction of Maglev and PX plant, or transited into profitable commodity, such as hydropower, it is natural for the public to call into question who the beneficiaries will be. The Maglev, PX plant, and hydropower encompass a process of technological and engineering, as well as a process of production and consumption. The latter is accomplished with the expansion of privatization and market economy. The right of exploitation and the benefits to be

generated by the projects have fallen into the hands of the project owners. They would make great profits from selling Maglev train tickets, selling PX, and selling electricity, but the benefits to the local residents is considered merely the potential benefits which are associated with GDP growth. Also, many people cannot accept that the government would use tax revenue to support the projects. According to a citizen interviewed in the Shanghai Maglev case, even though Shanghai enjoys a fast economic growth, there is no justification for the government to spend the money collected from the taxpayers of the city on a project which is deemed to be done for pure prestige (French, 2008).

Table 3 compares the three cases in terms of the impacts that would be brought by each project. The data presented here reveal two main forms of public participation in environmental affairs. One has assumed the features of the “NIMBY” (not in my backyard) phenomenon which was first found in western societies, as represented by the Shanghai Maglev Project and the Xiamen PX Project. It happens commonly in the urban areas, where environmental damage directly affects people’s security, health, livelihood, and their quality of life. The other form, as represented by the case of Nu River Dams Project, focuses more on the broad social impacts brought about by the project. In the case of Shanghai Maglev Project, the main causes driving to the opposition can be attributed to several elements, such as environmental safety, property values, and how tax money is spent. In the second case, the coalescing of citizens of Xiamen around the issues like safety, property values, and environmental pollution was seen as the strongest sign of the rising resentment among the

Chinese citizens over a lack of say in environmental decision-making.

Table 3 Potential Negative Impacts Brought by the Projects

	Shanghai Maglev	Xiamen PX	Nu River Dams
Environmental impacts	Noise pollution	Air pollution Fires Soil contamination Waste overflow Surface water pollution	Biodiversity loss Floods Loss of landscape Soil erosion Deforestation Disturbance of hydro and geological systems Reduced ecological/hydrological connectivity
Health impacts	Exposure to harmful radiation	Inhaling harmful xylene vapor	
Socio-economic Impacts	Displacement Loss of sense of place Depreciated property value	Depreciated property value	Displacement Loss of livelihood Loss of traditional culture Loss of sense of place
Other Impacts			Negative impacts on downstream neighbors in Southeast Asia

Created by the Author

In the case of Nu River Dams, protecting the ecological environment, the beautiful natural scene, as well as the unique culture of the minority groups is the main cause for the mass incident. Nu River is home to numerous species, and nine of the thirteen proposed dams on Nu River are located on the main stem of the national nature reserves. Besides, Nu River is a transboundary river, shared by China, Myanmar (Burma) and Thailand. The construction of Nu

River Dams Project would be bound to disrupt the ecological environment of the downstream countries. To be specific, the area that the Nu River flows past in Thailand is a wildlife sanctuary and a national park. Both Myanmar (Burma) and Thailand have voiced strong opposition to the dams project on the river. The “Three Parallel Rivers” area, including Nu River, Lancang River and Jinsha River, joined the UNESCO World Heritage List in July 2003. Moreover, the value of home to local residents is hard to measure. While the value of land can be assessed, culturally-based losses related to land are harder to quantify.

6.3 The Primary Players Leading the Environmental Mass Incidents and Their Performance

In the richest part of China, people have the strongest willingness to make clear their grievances about the way things have been run. In Shanghai, the residents along the proposed Maglev line rejected the government officials’ insistence that the Maglev would not be a threat to the neighbors’ health. The participants in this case have been proved to be hard to handle. They were mainly the middle-class property owners from the city, well-educated, articulate and adept at public relations. They may not previously have much to complain to the government, when compared with other groups such as the poor peasants. However, their awareness of safeguarding their rights had grown along with their prosperity. They acted as the key players in the environmental mass incident in Shanghai, but they were also the primary players in China’s frantic game to expand its economy. Additionally, they had strong beliefs that there needed to be some checks made on power.

The protesters in Shanghai said that they were proud of the city's economic development, but balancing the development with the lives of the people was also a crucial topic (Torchia, 2008). The case of Shanghai Maglev is unique because both the protesters and the government were extremely self-controlled. Most citizens who marched on People's Square shied away from the word "march", preferring to use the term "collective walk" instead. This mode fits into the Chinese "harmonious culture" and reflects the neighbors' high civic literacy. The government did not crush the protest with brutal force, as it often put down the protests in rural areas, because this was Shanghai, a city that the eyes of the world were watching. The protesters chose to march on People's Square and Nanjing Road, one of the busiest shopping streets in the world. The street was lined with various banners, driving home the message that in Shanghai, commerce is king. Using force to hold back the crowd from "mild walking" amid the banners and shopping malls and luxury shops would definitely have some serious repercussions for consumer behavior. Likewise, in Xiamen, the interactions between the protesters and the government may also be described as "benign".

Generally, the primary players who were leading an environmental mass incident should be the potential victims of the infrastructure project. In the case of Shanghai Maglev, it was mainly the neighbors living along the proposed Maglev line that carried out the most significant advocacy. In the case of Xiamen PX, the majority of the participants were the citizens of Xiamen, a little more mixed than in Shanghai. But they all live in Xiamen, with more or less clear and common interests at stake. Theoretically, the local people in Nu River should have been the primary

players in the process of the anti-dams operation, just like the situations in the other two cases. The local people are the direct stakeholders who would be affected as a result of the project execution and completion. But that was not the case. Instead, the primary players in the environmental mass incident of the Nu River Dams Project were the ENGOs and environmental activists in the urban areas far away from Nu River (*Table 4*).

Table 4 Potential Victims vs. Primary Players

	Shanghai Maglev	Xiamen PX	Nu River Dams
Potential affected population	1,600,000 (people living within 200 meters of the proposed line)	100,000 (population of Haicang, Xiamen)	50,000 (people to be displaced)
Type of affected population	Urban (middle classes)	Urban (general public)	Rural (ethnic minorities)
Primary players	Neighbors Scientists	Citizens Scientists	Local/international ENGOs Scientists Environmentalists
Forms of public participation	<ul style="list-style-type: none"> ● Objection to the EIA ● Official complaint letters and petitions ● Street protest 	<ul style="list-style-type: none"> ● Objection to the EIA ● Development of alternative proposals ● Media-based activism ● Official complaint letters and petitions ● Street protest 	<ul style="list-style-type: none"> ● Objection to the EIA ● Community research ● Creation of alternative reports ● Development of a network ● Development of alternative proposals ● Lawsuits ● Media-based activism ● Official complaint letters and petitions ● Street protest

Created by the Author

Most of the local residents living along the Nu River have no idea what the dams project meant to them, but what they do understand is the local dependence on the government projects. They have the sense that whatever the government have decided to do is good — supporting the project is for the benefit of the nation and their own well-being. The attitude of trust stems from history and is common among the local residents. They are mainly peasants, less educated and simple-minded. They can never understand the complexity of environmental politics in China.

Thus, in the absence of the local inhabitants, the environmental mass incident in the case of Nu River Dams Project was completely organized by ENGOs, and became a typical civic action led by the civil society groups. Together with other types of civil society organizations, ENGOs displayed their advantage in mobilizing people through various strategies. They took collective action in attracting the participants across geographical boundary, constructing and expanding the green public sphere, making demand on the government, affecting the policy-making on the EIA, as well as reconstructing the networks among the actors in different realms, including ENGOs, environmentalists, journalists, volunteers, the developer, the local residents, and the government. They were dedicated to cultivating a self-governance space among the market, the state, and the society at large. Their appeals had even been echoed by international organizations.

Along with the rising sense of public participation, the green public sphere and civil society are indeed thriving in China, but they appear to be limited to the social elite. “The public” is not a

homogeneous group — that is why many lower-class peasants in the case of Nu River Dams Project did not put up any resistance. Always, these lower-class people are concerned more about their land and livelihoods. In an environmental issue, they lack access to information and awareness and capacity of participation, especially in the precautionary phase of the infrastructure project. Perhaps they will engage in environmental mass incidents someday, but that would be most likely to happen after the environmental harms have already actually occurred and greatly impacted their lives.

In contrast, the social elite never take the government's decision-making as trustworthy without close examination. They are extremely clever in expressing their discontents and playing the Chinese propaganda game. They try all means in their arsenal in order to get their voices heard. Meanwhile, they are non-disruptive and never challenge the legitimacy of the Chinese Communist Party (CCP)'s control. The Maglev and PX protesters said what they wanted was the government's responding to the concerns of the citizens and taking them seriously. The anti-dam environmentalists and ENGOs affirmed that their desire was for the government to be careful not to damage ecological environment while developing the natural resources to generate economic growth. These are exactly what the CCP had promised to do in its propaganda. They did not mean to challenge the CCP's political monopoly. Instead, they took actions in an adaptive way to the political environment.

Particularly, as the primary player in the case of Nu River Dams, ENGOs, and their associated activities posed great pressure to the central government. They took advantage of the support

from the SEPA to launch the campaign. Some leaders of the ENGOs have strong political networks, such as Wang Yongchen, who founded Green Earth Volunteers¹³. She is the senior journalist specializing in the environment and has received China's most esteemed environmental award. She received a phone call from a SEPA official about SEPA's objection to the Dams Project, which indicated the beginning of their anti-dam campaign (Jin, 2007). Apart from political networks, some others have more cultural prestige. For instance, Yu Xiaogang, the founder of the group Green Watershed¹⁴, is an environmental resources manager in Yunnan Province, and is considered to be a local water expert. Both types of resources count in the mobilization process. The involved ENGOs all have close interaction with the governmental agencies, and thus made their opposition to the infrastructure project looked less malicious.

6.4 The Media's Role

One thing that does seem noteworthy in all these three environmental mass incidents is that the participants largely got leverage through social media, instead of traditional mass media, to build up public opinion pressure on the government and take real actions. In the past, rarely were protests in China so well organized. A sense of participation is fostered through the rise of the social media, which grinds down barriers to expressing thoughts. With the features of openness, self-organization, individuality, interactivity, and publicity, social media is now widely

¹³ Founded in 1996, Green Earth Volunteers is one of the oldest ENGO in China. It serves as a vehicle for grassroots public participation through encouraging volunteerism.

¹⁴ Green Watershed is an ENGO in founded in southwestern Yunnan Province in China in 2002. It advocates for sustainable watershed management programs.

seen to have facilitated environmental participation. They affect people's lifestyles, habits of thought, as well as the construction of the civil society in China.

Protesters in the Shanghai and Xiamen directly benefited from the social media. In the early stage of the two cases, very limited exposure time had left the targeted residents no chance to respond with preparedness. Consequently, there was no reaction from the public until some residents unintentionally found the announcements and called for public attention. Since mass media was under tight control by CCP and the government, mobilizations was mainly relied upon through the Internet and cell phone. Such communication means have made it possible to exchange instant information promptly.

Social media, like the Internet and mobile communication, have created a brand new world where there is less privilege but more freedom and equality (*Figure 8 & Figure 9*). The use of social media amplifies the impacts of environmental mass incidents on the government's legitimacy. It breaks information asymmetry between the public and the government and provides enormous potential for organizing environmental mass incidents and getting protest messages to the public. It also offers alternative participation channels, provides unique motivation for public participation, and consequently promotes the development of democratic politics in China.

Apart from the above-mentioned media-public interaction, there is also a media-government interaction in these three cases. To some extent, environmental mass incidents can set and

influence government agenda via media, by shifting the decision makers' attention to a policy problem or a particular solution. Media may impact on the government's legitimacy in various manners, but the level of its impact is uncertain.

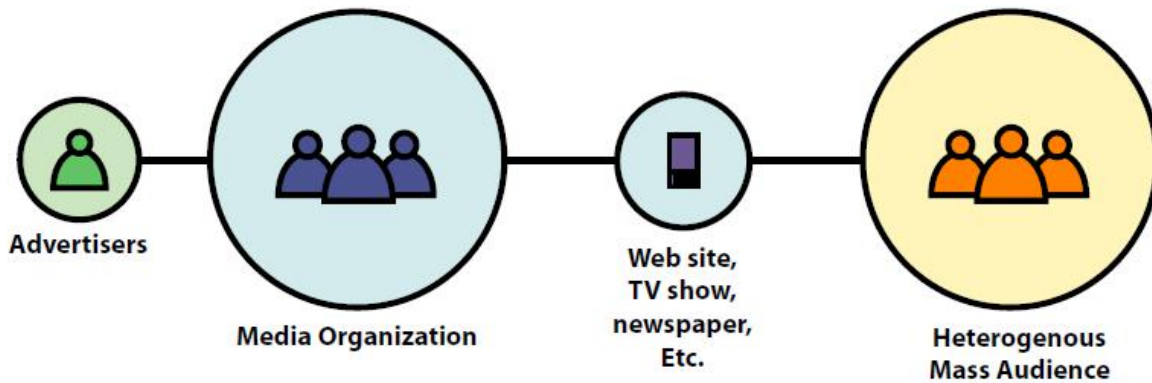


Figure 8 Broadcast: Mass Media

Source: Bowman and Willis, 2003, p.10



Figure 9 Intercast: Social Media

Source: Bowman and Willis, 2003, p.10

Table 5 shows the themes included in media coverage in the case of Shanghai Maglev. The

Southern Metropolis Daily was the first media to report this environmental mass incident. As a market-oriented mass media, it stayed neutral and reported the general status of the protest. However, the protest has never been mentioned in the government agenda.

Table 5 Themes Included in Media Coverage of the Shanghai Maglev Project

Government agenda (Xinhua News Agency)	Media agenda (Southern Metropolis Daily)	Online public agenda (the Tianya Forum)
<ul style="list-style-type: none"> ● The project is controversial. ● The department concerned is actively collecting different opinions. ● Impact on people’s health would be small or non-existent according to EIA. ● Providing scientific evidences can address people’s doubts. ● There is a balance between scientific development and environmental protection. ● The planning would be further adjusted. 	<ul style="list-style-type: none"> ● The planning route of the Maglev project is controversial. ● The neighbors express their worries and opposition through “mild walking”. ● There is no formal standard for electromagnetic pollution in China. 	<ul style="list-style-type: none"> ● The project would bring about tremendous negative impacts. ● Neighbors should join forces to oppose the project. ● The project can help improve the transportation system. ● The project is not technologically mature. ● EIA and the decision-making process is not transparent. ● The costs of Maglev construction and maintenance are too high. ● A neighbor was beaten by the police because of hanging an anti-Maglev banner.

Created by the Author

The online public opinions were much more varied. While a large part of the people expressed their opposition to the Maglev Project, there were some voices supporting it, saying that the project can help improve Shanghai’s transportation system. Besides, public opinions were extremely detailed and specific, compared with the official media’s broad generalizing which

was meant to cover all situations. The netizens found faults through the information released by the government. For instance, the news from the official media reported that impact on people's health would be small or non-existent according to EIA. But in the online forum, people made strong arguments against the scientific validity of the EIA. Originally, their opposition to the project was out of their health and property value concerns. Their online arguments, however, covered far beyond those obvious and visible things. They listed almost all the drawbacks of building a Maglev, from the high operation and maintenance costs, to the very professional technical concerns about rubber insulation overheating along the electrically charged track, which China's official media have never given details about.

Similar findings have emerged in the media coverage of the Xiamen PX Project (*Table 6*). The government-controlled official media was always showing positive information, while the online public agenda tended to be negative. Initially, the Xiamen government used their official media to convey the economic benefits of the project, but it failed to alleviate the citizens' suspicions. At a later stage, although the government changed its tune by admitting that the industrial layout in Xiamen is imbalanced, no mentions were made in its agenda of the successful protest organized by their citizens.

Additionally, the media and online public agenda provided new details and trains of thoughts from time to time, either for the public or for the government. For instance, the mass media put up the fact that EIA was not a necessary document for planning examination and approval in Xiamen, so the Xiamen government can either accept or ignore it by right. Moreover, during

the online voting stage in the case of Xiamen, the voting was suddenly stopped by the website for a so-called technical reason. In addition, the website showed an announcement that “The voting is initiated by the Xiamen Network website and has nothing to do with the Xiamen government.” This was also thought-provoking.

Table 6 Themes Included in Media Coverage of the Xiamen PX Project

Government agenda (Xinhua News Agency)	Media agenda (Southern Metropolis Daily)	Online public agenda (the Tianya Forum)
<ul style="list-style-type: none"> ● Xiamen government’s governance capability was strengthened. ● The project will lead to large gains. ● Implementing EIA nationwide allows no delay. ● The impetus of addressing severe environmental issues comes from the public. ● Industrial layout in Xiamen is imbalanced. ● Social media has played an important role in facilitating the expression of public opinion. ● Ninety percent people voted against the Xiamen PX Project. ● The planning would be further adjusted. ● The final decision concerning the PX Project would be made by the Xiamen government. 	<ul style="list-style-type: none"> ● Citizens of Xiamen used text messages to oppose the PX project. ● Xiamen PX Incident brought confidence to the people. ● The public has won victory in the anti-PX protest. ● Participating in public affairs is gradually becoming common for the public in China. ● Public participation is an important guarantee of environmental security. ● The project might get relocated. 	<ul style="list-style-type: none"> ● Stop the Xiamen PX Project! ● Large amounts of anti-PX news reports have been deleted. ● The project should be built at least 100 kilometers out of the city. ● EIA was not a necessary document for planning examination and approval in Xiamen. ● Xiamen citizens need the PX project to develop economy for leading a comfortable life. ● Citizens of Xiamen are disappointed with the mass media. ● Xiamen is confident to make the project into the best example of chemical plant. ● Public opinion might be powerless, but it is not useless. ● Online voting was stopped by the website for technical reasons.

Created by the Author

In the case of Nu River Dams, the basic tune of the three types of media is still similar. However, it is worth noting that the mass media was considered to be the key ally of the ENGOs who worked closely with them to make contributions in dealing with environmental issues. ENGOs organized people to send petitions to the government, and wrote specific reports on the project; the mass media covered those ENGOs’ activities and then raised public concern on the issue. But the official media was still an exception, since it had to keep in line with the governmental policy (*Table 7*).

Table 7 Themes Included in Media Coverage of the Nu River Dams Project

Government agenda (Xinhua News Agency)	Media agenda (Southern Metropolis Daily)	Online public agenda (the Tianya Forum)
<ul style="list-style-type: none"> ● The project is controversial. ● China is a country with plenty of water resources, but water development was very limited. 	<ul style="list-style-type: none"> ● Building dams on the Nu River will have negative impacts on the environment. ● Plenty of water experts advocate that China should introduce a system to assess Green GDP. ● Experience gives us many lessons to tell us that environmental damages are irreversible. 	<ul style="list-style-type: none"> ● Protect the Nu River! ● Almost all the proposals for dam building in the world have overestimated the benefits. ● Local inhabitants cannot solve the problem of food and clothing. The project might be good for poverty alleviation. ● Nu River has already been polluted. ● Premier Wen Jiabao called for a halt to the project.

Created by the Author

All in all, it is not hard to see that participation in environmental mass incidents is still a taboo under China’s authoritarian regime. In all three cases, the governments did not use their

official media to inform about the planning of these projects in advance, and intended to deprive the public of their rights to know and participate in the process of decision-making. After the mass incidents, the first responses by the local governments were to cover them up by media control rather than inform the public and relevant departments with any progress. In comparison, the themes from the online forum are many and varied.

Originally, allowing a certain degree of social media participation was done because the governments needed to build legitimacy for their rule, making the decisions acceptable to the public and bring people together to get united. However, the results turned out to be just the opposite. Shocked by the overwhelming opposition to the projects on the social media, the central and local governments adjusted their positions continuously. Furthermore, because of the public opinions, the governments could not remain bystanders anymore. To break the deadlock, they began to negotiate with the stakeholders, persuade the opponents, and, at the same time, make concessions. Reciprocal discussions were greatly facilitated by the media, though the dialogue may not always be effective.

6.5 Discussion

In China, one of the most significant domestic conditions concerning environmental decision-making is the increasingly assertive citizenry and its soaring demand for environmental participation. However, public participation consists of different stages, and there are differences in their intensity. When environmental participation develops into mass incidents,

conflicts are inevitable as each stakeholder has their own values and positions. When neighbors and citizens, living under the rule of an authoritarian regime, begin to vent their anger and take to the streets, we could say that it may almost be their last resort.

Impacts of environmental mass incidents are the joint effects of multiple factors and the four dimensions of evaluating them are interrelated with each other. Decision makers take into account the different nature of the proposed projects, including the geographic, social and economic context. Each project takes charge of their broad and macroscopic missions. This basic consideration determines their flexibility of changing their decisions. Simultaneously, the distinct context, scale, as well as the type of the proposed projects bring about various negative impacts, making the scopes of the potential affected area be at different levels, including community, regional, and national. The objective negative impacts, together with the public's subjective judgement on them out of their personal value, determine the distinct causes of public participation among the projects. Moreover, people are all shaped by their surrounding context and environment. Prosperous cities provide people with wider knowledge of the world, critical thinking skills, as well as clever minds in expressing their discontents. Participants from the well-developed regions of China tend to have a better performance in the process of environmental mass incidents, while the direct victims from the poor rural areas do not even have the sense of participation. Instead, environmentally concerned individuals and groups who stay far away from the proposed site become the primary players. Meanwhile, the role of media becomes increasingly crucial in facilitating environmental participation, but sometimes

media control still exists. It transforms from being explicit to being subtle. The media acts as an amplifier of the public opinion, a watchdog monitoring government behaviors, a means for mobilization, but also form the eyes and ears of the government.

Table 8 Outcome of Environmental Mass Incidents

	Shanghai Maglev	Xiamen PX	Nu River Dams
Start Date	12/29/2007	03/16/2007	08/13/2003
End Date	05/06/2008	06/02/2007	01/29/2013
Duration	5 months	3 months	10 years
Project Status	Stopped	Relocated	Under construction
Short-term outcome of opposition	Success	Success	Failure
Long-term implication	Unknown	Unknown	Unknown

Created by the Author

As mentioned above, the starting point of an environmental mass incident is generally rooted in the people’s grievances about a certain infrastructure project. In some cases, the participants simply seek to address the immediate demands. We all know the outcome of the three projects. The Maglev Project in Shanghai was cancelled; the PX Project in Xiamen was relocated to a less populated city; and the Nu River Dams Project was eventually free to move forward after a temporary halt (*Table 8*). However, in some other cases, what the participants seek are some broad long-term political changes besides the obvious short-term outcome. For example, ENGOs and environmental activists in the case of Nu River Dams expected to use that case and set it as a precedent to promote a more participative decision-making process for the infrastructure projects in general, based on laws. Since public participation has already been

required in EIA law in 2003, this law should have an effect. It would be a big step forward if the legal basis for public participation could be smoothly enforced from then on.

For the authorities in China, environmental mass incidents are a conundrum. They expect to maintain social stability, but on the other hand, they also want to present an image of attending to the needs of the public. As a result, environmental mass incidents are tolerated much more than those caused by political concerns. Correspondingly, there is a greater chance for people to make a difference in environmental decision-making through public participation. For example, the government officials in Xiamen have shown the suspension and relocation of the PX project as an example of the harmonious approach to government.

Now, going further, it can be asked: what does the short-term outcome of the environmental mass incidents mean? For the citizens of Xiamen, it is a victory of public participation. However, citizens of Zhangzhou were not that lucky. The relocation of the PX Project triggered a new round of protests in this new destination city. Explosions and fires in succession at the plant in July 2013 and April 2015 have raised new concerns about the safety of such large-scale industrial projects. Such relocation becomes a common solution, but it does not radically fix the problem. Also, in the case of Nu River Dams, ENGOs and the media's bottom-up participation seemed to successfully challenge the traditional decision-making process at first. Nevertheless, even though with the active involvement of the media, the final decision-making process and the outcome were still top-down. The project was still smoothly proposed by NDRC, reviewed by the SPEA, and then carried out by the Yunnan Provincial Government. Only

the case of Shanghai Maglev appears to have a perfect happy ending so far. The relocation and reopening of the two projects in Xiamen and Nu River also made the problem of environmentally vulnerable rural areas remain unresolved. The outcomes further reflected the relative institutional marginalization of the poorer, less politically and technically savvy residents from the rural and less-developed urban areas, in comparison with their counterparts from the better-developed urban areas.

In the modern society, public opinion will never be unanimous. Even within the opponents of the three projects, different people have different interests and opinions. Environmental mass incident is a powerful form through which people can speak against the infrastructure projects, but decisions are not taken by merely looking at which group sends more people onto the street to protest. The decision makers always take comprehensive views. For instance, poverty alleviation and environmental protection are two global missions for sustainable development. In the case of Nu River Dams, most of the local people live in extreme poverty conditions. It is well acknowledged that the ultimate purpose of environmental protection is to protect human beings, rather than nature itself. Moreover, based on the scientific data, the environmental cost of building dams on the Nu River is not as high as what the environmentalists claim. That is why the decision makers finally reopened this project.

In China, laws and regulations are still being developed. Checks and balances against the authoritarian rule of the CCP are still very limited. Protesters in both Shanghai and Xiamen were instructed by the police to speak against the project “through proper channels.” However, for

those citizens, there was no proper channel. Almost all their attempts to participate in the forms other than environmental mass incident were ignored. It was seen that although the government encouraged environmental participation, but the scale and intensity of the participation should never get out of their control.

There is no denying that the CCP is learning to adapt to these new circumstances and becoming more responsive due to environmental mass incidents. These three incidents have served as examples, and as people from other places learn from them, they put new ingredients into them. Thus, the snowball effect occurs where a snowball starts rolling and gradually gets increasingly larger. The government slowly learns to adjust its role. Negotiation, compromise, as well as some rule-changing behaviors have indicated the impacts of environmental mass incidents. However, the decision makers are supposed to not wait until the public has voiced their discontents through such an extreme manner. If the government can present the details of infrastructure projects to the public early and accurately, provide open channels for the different interest groups to fully express their views, and attach more importance to public concerns, the need for environmental mass incidents will vanish. This is the process of real empowerment.

7 REFLECTIONS

The study has reiterated in the previous sections that the impacts of environmental mass incidents lie in both short-term results of the infrastructure projects and long-term systematic solutions to environmental decision-making process. However, the trouble with evaluating the long-term significance of environmental mass incidents is that no one knows what it means or how to measure it.

The public displays a “preventative” form of mass incidents. It targets the proposed projects instead of the completed ones. People are not asking for financial or material compensation “after the fact”, but demanding better environmental and health rights beforehand. Potential risks are now sufficient to arouse public anxieties. As environmental issues are apolitical, an increasing number of people desire to participate, but they come up against systematic obstruction. The outcome of the three cases of environmental mass incidents should not be simply considered as a single success or failure, but the beginning of a series of struggles. Environmental mass incidents are not about individual wins or losses. They are about reforms for a better governance mechanism, in order to facilitate the interaction between the decision makers and the public, and to stop similar incidents from arising again.

Environmental mass incidents have gradually become a typical form of environmental public participation, which reflects the sickness of the society. Once the public has taken to the streets, the responses and solutions from the authorities begin to pick up speed, and the progress far

surpasses that which is received from regular public participation. The environmental authorities in China are weak, whereas the environmental issues tend to have tremendous impacts on people's health, social equality, as well as the chances of unrest. This style of governance sows the seeds of social crises. The price seems to be too costly.

One of the key challenges is that the inertial of the old governance system still exists. The government has long been strategic and systematic about how it cracks down on the dissenting voices. The CCP should have recognized how easily it can lose credit if it treats any criticism and opposition as unacceptable. Moreover, to some extent, the government is participating in the environmental decision-making process as an interested party rather than an objective arbitrator among the various stakeholders with different interests. It suppresses normal channels of public participation at every phase of decision-making, to deter people from opposing the infrastructure projects and deflect awkward questions about transparency and accountability. Thus, environmental mass incidents become the result. The solution is to return power to the public. Only then can the public effectively supervise the authorities and hold them to account.

Among the present environmental mass incidents in China, another issue which deserves reflection is the role of civil society. When it comes to the environmental mass incidents, it seems that ENGOs and the public act separately. In the case of Shanghai Maglev and Xiamen PX, protesters did not get any assistance from ENGOs, while in the Nu River Dams Project, ENGOs did not choose to take to the street. For the ENGOs, promoting information disclosure, raising

public awareness of environmental protection, and establishing a system for public interest lawsuits are valuable, but these are unable to live up to the public hopes because they are not as immediately effective and visually impressive as a street protest. ENGOs have been put in an awkward position in China. Many of them lack expertise and are ill-equipped to have social impacts. Their development is restricted. As environmental mass incidents emerge, they need to redefine their values and strengthen their operational and management capacity.

8 CONCLUSION AND POLICY IMPLICATIONS

In China, there are very few environmental mass incidents a decade ago. Mostly, even though people were aware of the various risks caused by the environmental issues, they either accepted environmental damage as an inevitable consequence of the welcome economic growth, or felt powerless to do anything about it. With time, however, people's attitudes have shifted, and they are increasingly demanding a better government response.

With the increasing importance in effective environmental governance, public participation gradually became a significant part in institutional and policy design. Nevertheless, people's right of public participation can be called so only when it is exercised, otherwise, it is merely a scrap of paper. Furthermore, being involved in a process is not equivalent to having influence. In this sense, the three environmental mass incidents presented in this study are unprecedented. For the first time, people have made an attempt to translate their voice into influence and make a difference.

Impacts of environmental mass incidents come from several necessary conditions. The geographic, social, and economic context, the calculation of the potential benefits, environmental and social harms, who the participants are, their performance, as well as the media's assistance, all have entered into the equation of impacts of environmental mass incidents.

Along the spectrum of geographic, social, and economic context, the scope of the three cases

are identified to be at the community, regional, and national level, respectively. Shanghai Maglev is a shiny new project which was proposed to be showcased at the 2010 Shanghai EXPO. It was cancelled due to the neighbors' strong opposition out of their "NIMBY" concern. The Xiamen PX Project, one of the biggest investment projects in the history of the city, was relocated after a series of protests and public hearings were made. In the case of Nu River, the unspoiled, pristine nature and culture clashed with its poverty, backwardness, as well as abundant hydropower resources. The Dams Project was eventually free to move forward after suffering a temporary halt.

As this study has illustrated, the serious lack of information or transparency throughout the environmental decision-making process stimulated the subsequent mass incidents. Public concerns about their asymmetrical rights and obligations has become a cause as well. There are two main types of participation. One has assumed the features of the "NIMBY", and the other type focuses more on the broad social impacts brought about by the infrastructure project. In terms of the primary players leading the environmental mass incidents, people from the richer part of China tended to have stronger willingness and capacity to get their voices heard. The green public sphere and civil society are thriving in China, but they are limited to the social elite. Additionally, the participants in the environmental mass incidents are not necessarily the direct victims of the proposed project. Moreover, the significant changes, such as the emergence of a vibrant social media and the rapid development of civil society, has created a brand new state-society relationship. Compared with the traditional mass media banned from reporting

topics like environmental mass incidents, social media enjoys relatively more autonomy. It has been used to organize environmental mass incidents, to disseminate information about protests, and to interact with the government. Meanwhile, media control still exists, but it has just transformed from being explicit to becoming more subtle.

Impacts of environmental mass incidents encompass a combination of both short-term outcome, which involves a change of the original decision, and long-term monitoring and systematic solutions. There are some promising signs for the development of public participation and civil society. A growing number of people have demonstrated a strong willingness to oppose the infrastructure projects which they think are unreasonable. Public participation is increasing the dialogue on environmental and civil issues and having an impact on the Chinese society.

Environmental mass incidents are an unconventional form of environmental public participation. It reminds us that, in practice, if public participation is simply a pretense, and the public actually have no power and cannot change anything, it would be meaningless. Environmental mass incidents are pushing for more inclusive and equitable environmental decision-making.

First, the government is supposed to encourage and solicit public participation on an infrastructure project at an earlier stage, which allows for potential disputes to be brought to light early, and weaken the future contradictions. It is in the interest of both the public and the

government that some necessary negotiations should take place sooner than later. In addition, the Chinese Communist Party (CCP) needs to further open doors to the public, and to protect the freedom of information on the potential infrastructure projects and environmental-related issues.

Second, legal and administrative systems are supposed to be more efficient and impartial in the environmental public participation. China's legal and administrative systems have long been criticized for their lack of transparency and weak enforcement capacity. Clear definition of the roles and responsibilities of each law enforcement agency is the foundation for a credible and harmonious society.

Finally, the need for advancement of human rights and civil society has never been more apparent and urgent. Strengthening disinterested third-party environmental supervision would urge the government to be more self-regulated, and would also be a strong platform to resolve conflicts between the government and the public. The effectiveness of checks and balances would rely on the overall progress of China's institutional civilization. Healthy public participation need to be supported by various social forces.

The paper not only calls for a change from the conventional development model which focuses excessively on GDP while ignoring environmental issues, as well as the halt of establishment of large-scale infrastructure projects with negative impacts on the ecological system and surrounding environment. Also, it aims to promote the government's move to adaptively

empower the public through the public participation in the environmental decision-making, and to achieve a balance between concessions and control.

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APPENDIX

List of News Articles — Shanghai Maglev Project

12/01/2007 - 12/01/2008

No.	Date	Media Source	Title
SH-XNA-01	12/13/2007	Xinhua News Agency	<ul style="list-style-type: none"> ● Almost No Radiation Impact Beyond 3-5 Meters; EIA for Shanghai-Hangzhou Maglev Still Processing
SH-XNA-02	01/04/2008	Xinhua News Agency	<ul style="list-style-type: none"> ● Shanghai Solicits Public Opinions on Maglev Optimum Proposal; Residents Concern About Radiation and Noise
SH-XNA-03	01/07/2008	Xinhua News Agency	<ul style="list-style-type: none"> ● Shanghai Maglev Optimum Proposal Remains Controversial; The Public: 'Human Health has been affected'
SH-XNA-04	01/14/2008	Xinhua News Agency	<ul style="list-style-type: none"> ● Maglev: Use Scientific Evidences to Convince the Public
SH-XNA-05	02/01/2008	Xinhua News Agency	<ul style="list-style-type: none"> ● Han Zheng: 'Shanghai Maglev Extension Plan will be further discussed by experts'
SH-XNA-06	03/14/2008	Xinhua News Agency	<ul style="list-style-type: none"> ● Relations Between Scientific Development and Environment Protection
SH-XNA-07	08/18/2008	Xinhua News Agency	<ul style="list-style-type: none"> ● Shanghai-Hangzhou Maglev to Start in 2010; Length to be Adjusted
SH-XNA-08	08/19/2008	Xinhua News Agency	<ul style="list-style-type: none"> ● Information Office of Shanghai Municipality Denies 'Shanghai-Hangzhou Maglev to Start in 2010'
SH-SMD-01	01/13/2008	Southern Metropolis Daily	<ul style="list-style-type: none"> ● Shanghai Maglev Plan Triggers Debate; Residents Concern About Magnetic Radiation
SH-SMD-02	01/21/2008	Southern Metropolis Daily	<ul style="list-style-type: none"> ● Special Story: Strolling in Shanghai
SH-SMD-03	04/04/2008	Southern Metropolis Daily	<ul style="list-style-type: none"> ● No Magnetic Pollution Standard in China; Shanghai Citizens Express Concern by 'Strolling'

List of News Articles — Xiamen PX Project

03/01/2007 - 03/01/2008

No.	Date	Media Source	Title
XM-XNA-01	06/12/2007	Xinhua News Agency	● The Power of Text Messages
XM-XNA-02	06/23/2007	Xinhua News Agency	● Pan Yue: 'Industrial layout in Haicang, Xiamen is Imbalanced; Strategic EIA Allows No Delay'
XM-XNA-03	12/11/2007	Xinhua News Agency	● Website for EIA Voting Cancelled; Over 90% Representatives Oppose Xiamen PX Project
XM-XNA-04	12/12/2007	Xinhua News Agency	● A Review of the Public Expression Barrier in the Close of Xiamen PX Voting Page
XM-XNA-05	12/12/2007	Xinhua News Agency	● 100 Public Representatives Are Picked by Lottery for the Hearing on Xiamen PX EIA
XM-XNA-06	12/14/2007	Xinhua News Agency	● Hearing on Xiamen PX Project Enjoys a Warm Atmosphere; Over 90% Representatives Oppose
XM-XNA-07	12/14/2007	Xinhua News Agency	● Hearing on Xiamen PX Project Held
XM-XNA-08	12/14/2007	Xinhua News Agency	● Xiamen Postpones the PX Project; Petrochemical Industrial District or City Sub-center
XM-XNA-09	12/16/2007	Xinhua News Agency	● Phase of Public Participation of Xiamen PX Project Ends; To be Determined by the Local People's Congress
XM-XNA-10	12/20/2007	Xinhua News Agency	● Government's Decision-making Conforms to Public Opinion; Xiamen PX Project to be Relocated to Zhangzhou
XM-XNA-11	12/20/2007	Xinhua News Agency	● Xiamen Government Openly Responds to the PX Project for the First Time; Governance Capability Strengthened
XM-XNA-12	12/21/2007	Xinhua News Agency	● Xiamen PX: Learning Contemporary Governance from Respecting Public Opinion
XM-XNA-13	12/23/2007	Xinhua News Agency	● Ximen PX Project: An Example of Respecting Public Opinion
XM-XNA-14	12/25/2007	Xinhua News Agency	● Lian Yue: 'In the Name of Citizens'

XM-XNA-15	12/28/2007	Xinhua News Agency	<ul style="list-style-type: none"> • The Entire Process of Xiamen PX Project: Chemists Promote the Relocation of PX Plant
XM-XNA-16	01/07/2008	Xinhua News Agency	<ul style="list-style-type: none"> • 2007 Top 10 Constitutional Examples Released: Illegal Brick Kilns and PX Project Included
XM-XNA-17	02/08/2008	Xinhua News Agency	<ul style="list-style-type: none"> • Political Civilization in the Details; A Review of Progress of China's Political System Reform in 2007
XM-SMD-01	05/29/2007	Southern Metropolis Daily	<ul style="list-style-type: none"> • Millions of Xiamen Citizens Crazy Forward a Text Message; Oppose Highly Contaminating Project
XM-SMD-02	12/08/2007	Southern Metropolis Daily	<ul style="list-style-type: none"> • Lian Yue: 'Xiamen is the Xiamen Citizens' Xiamen'
XM-SMD-03	12/20/2007	Southern Metropolis Daily	<ul style="list-style-type: none"> • The Promising Movers
XM-SMD-04	12/25/2007	Southern Metropolis Daily	<ul style="list-style-type: none"> • Xiamen Citizens' Anti-PX Fight: A Victory of Public Opinion Under the Banner of Environmental Protection
XM-SMD-05	12/18/2007	Southern Metropolis Daily	<ul style="list-style-type: none"> • Special Report: Xiamen PX
XM-SMD-06	05/31/2007	Southern Metropolis Daily	<ul style="list-style-type: none"> • Xiamen PX Project Temporarily Postponed; The Government Should not Misunderstand Public Opinion
XM-SMD-07	03/08/2008	Southern Metropolis Daily	<ul style="list-style-type: none"> • Lu Zhangong Responds to Xiamen PX Incident: 'The Anti-PX Vice-governor Has Been Promoted to the Ministerial Level'

List of News Articles — Nu River Dams Project

08/01/2003 - 08/01/2004

No.	Date	Media Source	Title
NR-XNA-01	12/29/2003	Xinhua News Agency	<ul style="list-style-type: none"> • Pay Attention to the Hydropower Development on Nu River; Debate on Nu River Dams Project
NR-SMD-01	09/23/2003	Southern Metropolis Daily	<ul style="list-style-type: none"> • Criticism on the Development of Nu River
NR-SMD-02	07/21/2004	Southern Metropolis Daily	<ul style="list-style-type: none"> • Dilemma by the Nu River