

**FACTORS INFLUENCING THE ROLES
OF ENVIRONMENTAL NGOs IN THE
BARGAINING OF P-XYLENE AND WATER
ISSUES IN YUNNAN, CHINA**

JIAO YIJUAN

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ISSUES IN YUNNAN, CHINA**

by

JIAO YIJUAN

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LIST OF ABBREVIATIONS

NGOs	Non-government Organizations
ENGOs	Environmental Non-government Organizations
PX	P-xylene
EB	Environmental Bargaining
PIEs	Pollution-intensive enterprises
SPSS	Statically Package for the Social Science
SEPA	State Environmental Protection Administration
SEM	Structural Equation Modelling
CPPCC	Chinese People's Political Consultative Conference
CCTV	China Central Television
Co., Ltd.	Company Limited

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**FAKTOR-FAKTOR YANG MEMPENGARUHI PERANAN NGOs ALAM
SEKITAR DALAM RUNDINGAN ISU P-XYLENE DAN AIR DI YUNNAN,
CHINA**

ABSTRAK

Pertubuhan bukan kerajaan alam sekitar (NGOs) mempunyai pengaruh yang semakin ketara dalam proses tadbir urus alam sekitar melalui pelbagai aktiviti kesedaran dan rundingan, tetapi terdapat kekurangan pemahaman yang komprehensif mengenai penglibatan mereka dalam rundingan alam sekitar (EB). Penyelidikan ini bertujuan untuk mengkaji peranan NGOs dalam EB dan faktor-faktor yang mempengaruhi peranan mereka dengan menggabungkan teori EB dan pihak berkepentingan. Kaedah penyelidikan campuran yang melibatkan tinjauan soal selidik mendalam, temu bual separa berstruktur, semakan dokumen, dan pemerhatian peserta digunakan untuk mendapatkan gambaran yang lebih lengkap tentang konteks penyelidikan ini. Model persamaan struktur penyertaan NGOs dalam EB telah dibina untuk membandingkan peranan NGOs dalam rundingan "Acara PX Kunming" dan "Acara Air Nujiang" di Yunnan, China. Keputusan menunjukkan bahawa kuasa kompleks dan kepentingan memainkan peranan penting semasa EB. Rangkaian perhubungan, media dan sumber manusia adalah antara faktor penting yang mempengaruhi peranan NGOs berbanding dengan faktor lain seperti pembiayaan, keterbukaan, pengetahuan, skala dan pengalaman. Kekuatan rangkaian perhubungan NGOs adalah penting untuk menyelesaikan masalah alam sekitar. Agar peranan NGOs berkesan dalam proses EB, mereka perlu diletakkan dalam konteks yang betul dalam proses rundingan. Adalah perlu untuk mewujudkan platform dan proses penyertaan awam yang cekap supaya EB lebih berkesan. Penemuan ini boleh

membantu kerajaan, ENGOs dan pihak berkepentingan lain dalam merangka protokol dan dasar EB yang lebih baik, membolehkan mereka menangani isu alam sekitar dengan lebih berjaya.

**FACTORS INFLUENCING THE ROLES OF ENVIRONMENTAL NGOs IN
THE BARGAINING OF P-XYLENE AND WATER ISSUES IN YUNNAN,
CHINA**

ABSTRACT

Environmental non-governmental organisations (ENGOS) have an increasingly significant influence on the environmental governance process through various awareness and negotiation activities, but there is still a lack of a comprehensive understanding of their involvement in environmental bargaining (EB). This study aims to investigate the role of ENGOS in EB and the influencing factors of their role by combining EB and stakeholder theories. A mixed-methods research design involving an in-depth questionnaire survey, a semi-structured interview, document review, and participant observation was used to gain a more complete picture of the research context. A structural equation model of ENGOS' participation in EB was constructed to compare the role of ENGOS in the negotiation of the "Kunming PX Event" and the "Nujiang Water Event" in Yunnan, China. The results show that complex powers and interests play a crucial role during EB. The relationship network, media, and human resources are among the most significant factors influencing the role of ENGOS out of all the other factors such as funding, openness, knowledge, scale, and experience. The strength of ENGOS' relationship networks is critical to solving environmental problems. In order for the roles of ENGOS to be effective in the EB process, they need to be placed in the right context in the negotiation process. It is necessary to establish efficient public participation platforms and processes for effective EB. The findings can help the government, ENGOS, and other stakeholders formulate better EB

protocols and policies, which will enable them to address environmental issues more successfully.

CHAPTER 1

INTRODUCTION

1.1 Research Background

Achieving the Sustainable Development Goals (SDGs) has become a global imperative (Sadiq et al., 2023). Since the middle of the 20th century, environmental problems have become increasingly severe as a result of advances in technology and human activities. This has led to the rise of environmental non-governmental organisations (ENGOS), non-profit organisations formed by citizens of civil societies for various social and humanitarian purposes and operating autonomously from governments (Galkina & Yang, 2020). ENGOS primarily aim for environmental protection and provide public environmental social services that originated in the United States, Europe, and other developed countries (Doh & Guay, 2006). These countries have a strong sense of civil rights and public awareness of environmental protection, so there are many well-known international ENGOS such as the World Wildlife Fund (WWF), Earth Day, and the Climate Action Network (CAN). Their size, influence, and financial capacity are much greater than those of ENGOS in developing countries since they have attracted many members of society to participate in the various environmental protection activities with perfect funding channels. ENGOS have begun to become the third force alongside the government and the market.

The superior development of economic efficiency in China has greatly promoted the growth of people's material wealth, but the environmental conditions on which people depend for their survival continue to deteriorate. Since the reform and opening up in 1978, ENGOS have been playing an increasingly functional role in China's national governance, and their number and size have been on the rise since then. The Chinese government has gradually shifted its administrative logic towards

NGOs from corporatism to collaborative governance (Wang, 2023). NGOs, which have emerged since the early 1990s, are among the most studied NGOs in China (Cooper, 2006; Dore, 2004; Ho, 2001; Schwartz, 2004).

As China's economy has achieved astonishing growth over the past three decades, environmental pollution and ecological damage have also become formidable threats to the country's future (Hsu, 2015). In China, NGOs, also called "social groups", are legitimate organisations with administrative permission from the government. These NGOs are social service organisations, such as public welfare organisations and grassroots service mass organisations, with the common characteristics of being not-for-profit, autonomous, non-state, voluntary, and organised. In the current diversified global environmental governance system, NGOs do not have the restriction of pursuing their own interests due to their worldwide activities and not-for-profit and public welfare characteristics. Their influence on global environmental governance and social development has been increasing over the years. This is a very distinctive feature of global environmental governance (Liu, 2014). In recent years, some scholars have focused on the involvement of NGOs in environmental bargaining (EB), that is, the development of a collaborative governance approach between local governments and NGOs to enhance public participation and respond to state decentralisation and increasing environmental problems in urban areas (Arantes et al., 2020). Pacheco-Vega and Murdie (2021) developed earlier theoretical work and concluded that the influence of NGOs depends on the ability of local citizens to participate in advocacy and the vulnerability of the state to external pressure. Villo et al. (2020) proposed a theory that introduces two concepts, shadow boxing and homeostasis, to study social movements and the interactions between social movements, NGOs, and the authoritarian state (Zhang, 2020b). Yekini et al.

(2020) extended the research on environmentalism and the role of NGOs in promoting environmental accountability. Kurdish environmental activists organised in ENGOs are the protectors of Kurdistan's natural environment. Hassaniyan (2021) focused on the emergence and goals of environmental activism in Rojhelat, Eastern Kurdistan, arguing that the growth of environmental activism as ENGOs is an emerging trend in Rojhelat and requires more in-depth studies of its various aspects.

Over the past 30 years, China's environmental policy has evolved and deepened from a national basic policy to a sustainable development strategy. The focus has changed from pollution control to a combination of pollution control and ecological protection (Zhang et al., 2007). The theoretical research on ENGOs in China is somewhat limited compared to the rich practical activities of ENGOs in China. In recent years, several studies have been conducted in China on the concept, characteristics, classification, status, and function of ENGOs (Liu, 2018). These studies aim to develop the problems and countermeasures, modes, and mechanisms of ENGOs' participation in ecosystem governance in the long term. ENGOs can be found in the coastal, northwestern, and southwestern regions of China. In particular, the developed coastal areas in the east of the country are the main focus of PX projects.

The rise of the concept of sustainable development has also influenced the expansion and cooperation of ENGOs in various industries, which in turn has influenced their participation in corporate social responsibility activities (Faroque et al., 2023). ENGOs have worked tirelessly to spread the values and vision of the Earth Charter's concept of sustainable development to many people around the world. This can enable humanity to develop a just, sustainable, and peaceful society in the 21st century (Lee, 2011). Gathering environmental information and communicating it to society is important to ENGOs themselves. This is done to raise public awareness

about environmental protection. However, when society and the public are faced with environmental problems, most ENGOs rarely provide concrete solutions or suggestions. Environmental issues are highly complex and require long-term and systematic work.

Mega-infrastructures such as waste incinerators, P-Xylene (PX) projects, and nuclear power plants continue to develop. However, they inevitably come at some social cost (Wang et al., 2021). These projects, also known as Not-in-My-Back-Yard (NIMBY) facilities, have complex social impacts (Upham & Johansen, 2020). Conflicts caused by NIMBY facilities pose a significant threat to urban harmony and sustainability (Shen & Wang, 2023). The number of public-initiated environmental administrative reviews has increased in recent years. This is due to the rise of public participation in China. There is a growing enthusiasm for public participation and oversight of the government's environmental decision-making, which is helpful for environmental protection at all levels and gets rid of the idea of the administrative standard. The Kunming PX incident and the Nujiang water incident involved ENGOs. In the Kunming PX incident, although there were many opposing opinions, the project was quietly launched. The voices of ENGOs such as Green Home and Mass Valley effectively influenced the development of the issue in the Nujiang water incident. Green Home can quickly mobilise considerable public opinion and social forces to exert pressure and attract public attention. Why do similar historical events have different outcomes?

The definition of EB varies according to the country concerned. The German Federal Environment Agency has defined EB as "*binding or non-binding negotiations in the economic sphere to protect the environment, to achieve environmental goals, to reduce environmentally harmful activities, or to stop environmentally harmful*

activities". For example, polluting companies make promises to the government and society and agree to carry out environmental management (Upham & Johansen, 2020). The European Union's conceptual interpretation of the environmental sector points out that organisations, including companies and corporations, make environmental commitments to public authorities (including governments) through negotiation (Doh & Guay, 2006). It can therefore be seen that an EB is a commitment by a company or organisation to protect the environment. The formulation of an EB is based on negotiation between the company and the government and uses the binding power of negotiation to improve environmental quality and environmental objectives.

The abbreviated decision-making of China's public policy process will inevitably lead to palpable bargaining during implementation (Doh & Guay, 2006). Environmentalists play an important role in the EB process (Affolderbach et al., 2012). More and more ENGOs are paying more attention to the gradually opened and friendly institutional channels of participation (Wu et al., 2017). The potential for environmental conflict is related to the form of EB. The higher the potential for conflict, the more informal the form of EB. Most EB measures adopted are direct and informal protective measures. As conflicts are resolved, the potential for conflict changes from high to low, and the form of EB changes from informal to formal. Conflict is most often manifested through cooperation, persuasion, and inducement. The form, such as multi-party negotiations, joint operations, participation in decision-making, etc., is mostly direct and formal.

1.2 Problem Statement

In the field of environmentalism, many theories have been developed to study ENGOs, including market failure theory, third-party government theory, and Western

environmental movement theory (Wang, 2003). However, there are only a few theoretical studies on ENGOs participation in EB at present. The direct reason proposed by EB theory is to overcome market failure and state failure in social resource allocation. Environmental "bargaining" is a macro-management of the environment based on the theory of governance and good governance. It is a process of using public authority to manage the ecological environment. EB includes three elements: bargaining power, bargaining strategy, and bargaining outcome. It emphasises the role of civil society, especially NGOs. It believes that not only the management effectiveness of government should be utilised, but also the role of public participation. Joint governance of environmental issues should be implemented through cooperation, consultation, partnership, and the establishment of common goals (Tim & Xie, 2004). Many scholars have conducted research on ENGO problems and countermeasures in the development of ENGO (Faroque et al., 2023), but there are only a few studies on the factors that influence the roles of ENGOs in EBs. Many scholars have applied stakeholder theory to discuss environmental protection issues. However, the factors, stages, and strategies of stakeholder bargaining are missing in this theory, which focuses more on the relationships and roles among stakeholders. Therefore, in order to explore the influencing factors, roles, and strategies of different stakeholders in different bargaining stages, the EB theory should be combined with the stakeholder theory.

More and more environmental conflicts directly promote the rise and development of environmental protection ENGOs in China (Wang, 2023). However, no comprehensive study in the past has been reported on the comparative roles of ENGOs in EB between the "Kunming PX event" and the "Nujiang Water event" in Yunnan, China. Therefore, this research study fills this geographical gap and provides

a sufficient basis for improvement. The government, ENGOs, and other stakeholders can review their performance and make necessary improvements. The conceptual model is an important innovation of this research, which will provide a groundbreaking theory and research model for relevant studies. This has very important practical significance for analysing the development direction of ENGOs and expanding their effective participation in EB.

1.3 Research Questions

With the development of modern civil society, ENGOs have become one of the most important issues in China's environmental public governance system and have made active and great contributions to the advancement of China's environmental governance work. Then, in the context of environmental public governance, how do China's ENGOs interact with other environmental governance entities such as enterprises, China's government, and the public at large? What role do they play in these interactions? What specific roles do they play? What are the factors that influence the performance of these roles? What are the reasons for this? How can its role be optimised to make it work better? Therefore, this study attempts to answer three general research questions as follows:

a) What are the similarities and differences in the role of ENGOs between the "Kunming PX event" and the "Nujiang Water event" in EB?

b) What are the influencing factors for the roles of ENGOs between the "Kunming PX event" and the "Nujiang Water event" in EB?

c) How to strengthen the roles of ENGOs in the "Kunming PX event" and the "Nujiang Water event" in EB?

1.4 Research Objectives

In this regard, this study aims to explore the status quo, influencing factors, and maximising the roles of ENGOs in EB by applying the perspective of EB theory with a case comparison analysis. This will help ENGOs take a reasonable position and promote their healthy development. Three research objectives specific to this study are listed below:

- a) To compare the roles of ENGOs to the "Kunming PX event" and the "Nujiang Water event" in EB.
- b) To evaluate the influencing factors of the roles of ENGOs in EB in the "Kunming PX event" and the "Nujiang Water event".
- c) To propose strategies for maximising the roles of ENGOs in EB in China.

1.5 Scope of the Study

With the development of industrialization and urbanisation since the reform and opening-up policies, environmental pollution has become a serious problem in China. Nowadays, through various awareness-raising and negotiation activities, ENGOs act as a third party for environmental protection. This study selected two typical environmental mass incidents in Yunnan Province as case studies. Kunming and Nujiang have similar geographical features, but their environmental protocols are different. The roles of ENGOs in negotiating the "Kunming PX event" and the "Nujiang Water event" in Yunnan, China were compared. This study, based on the EB and stakeholder theories, used qualitative and quantitative research methods as well as the Structural Equation Model (SEM) to analyse the influencing factors on the role of ENGOs in environmental bargaining.

1.6 Significance of the Study

This research has both theoretical and practical significance. Western scholars have conducted extensive and in-depth research on ENGOs, while China's research on ENGOs is relatively limited, so this research topic needs to be further explored. In particular, research on the positioning and influencing factors of ENGOs participating in EB is needed. That is, how NGOs interact with governments, enterprises, and the public in the process of participating in environmental governance. Therefore, this study constructs an analytical framework for ENGO participation in EB, starting from the theory of EB.

ENGOs have become an important governance body for effectively solving environmental problems with the rise and development of ENGOs in China. Their practical activities in environmental governance are not limited to simple bird watching, tree planting, garbage collection, species protection, or environmental education work. They also include strong initiative, third-party monitoring, political participation, advocacy, and maintaining environmental justice. Therefore, this study tries to analyse the role of ENGOs in EB and the similarities and differences of the influencing factors through the comparative analysis of the two cases according to EB and stakeholder theory, and finally put forward the strategy of optimising the role of ENGOs. In order to analyse the development direction of ENGOs and expand their effective participation in EB, this has very important practical implications.

This study is significant because there has been no comprehensive study on the comparative role of NGOs in EB between the "Kunming PX event" and the "Nujiang water event" in Yunnan, China. Therefore, this research study fills this geographical gap. This new model aims to cause the least injury through peaceful environmental bargaining. In addition, it can also increase the possibility of achieving a successful

environmental bargaining result. Meanwhile, other regions of the world are also witnessing increasing environmental mass incidents. What's more, in some extreme events, some people even lost their lives. It has become a global issue. So, this study can serve as an example for governments and enterprises. They can put this into practise around the world and settle these incidents successfully. The conceptual model is an important innovation of this research, which will provide a pioneering theory and research model for relevant studies.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Chapter two discusses in depth the theoretical underpinnings of the research study and reviews the literature relevant to the study. The first part reviews the literature on the role of NGOs, while the second part examines the theoretical framework that guides this research. The third part examines the definition and operationalization of the concepts in this study.

2.2 Concept Definition

2.2.1 The definition of NGOs

NGOs have been established all over the world in recent years. According to the concept and definition of NGOs, there has not been a unified standard in academic circles so far (Stirst, 2007). NGOs are also known as the third sector, the third domain, non-profit organisations, social intermediary organisations, voluntary organisations, civil society organisations, independent departments, charitable organisations, foundation organisations, and social organisations, depending on the emphasis and the different terminology used in each country.

In 1950, the United Nations Social and Economic Council Resolution defined NGOs in general terms as "international organisations which have been set up but which do not have governmental status may be regarded as NGOs". According to the World Bank, NGOs are "organisations that are private in nature but which are engaged in poverty alleviation, promoting the interests of the poor, environmental protection, the long-term provision of basic social services, or community development". Any

non-profit organisation independent of government departments. NGOs refer to value-oriented organisations that rely in whole or in part on donations for charity and provide services that are voluntary. Altruism and voluntarism are still its key limiting features (Barescut & Carroll, 2009; Sentongo & Munyagwa, 2004). NGOs are characterised by seven aspects that are widely recognised in academic circles, namely that they are organisational, popular, non-profit-making, autonomous, voluntary, do not participate in political activities such as elections, and are religious organisations that are not churches. NGOs are social organisations that are non-profit-making with organisational forms that are formal and belong to the non-governmental system, and they have autonomy in some degree for voluntary or public welfare (Barkin & Bouchez, 2002; Jones et al., 2017; Zhang et al., 2020).

The history of NGOs can be traced back to the mid-19th century (Birnbaum & Yu, 2006; Carroll, 2009). The more famous ones are the World Evangelical Union, established in 1846; the World Christian Youth Union, established in 1855; the Inter-State Committee of the Zodiac, established in 1863; and the Salvation Army, established in 1865. The initial NGOs are mostly related to affairs of religion and humanitarian affairs in the long run (Choudhury, 2021). NGOs have expanded into all areas of human activities, such as science and technology, economics, culture, politics, environmental protection, poverty alleviation, medical care, and so on. Since the 1990s, whether in the national ministry or in the international community, NGOs have been booming at an astonishing speed, forming a third sector all over the world. Professor Salamon, an authority on the third sector, called it a global "association revolution" (Clark et al., 1998; Crotty & Hall, 2013). He pointed out that "if the government representative has social inventions that are great as of the 18th century and the great invention of bureaucracy in the 19th century, then it can be said that

activities are organised privately; that is, a large number of civil society organisations represent the greatest of the 20th century social invention. In the early days of the emergence of NGOs, governments mostly restricted NGOs in various ways for the purpose of national security and stability (Damjanić, 2008; De Lalouvière & Sauzier, 2007; Ferenczi, 2019). The first Hague Peace Conference was held in 1899, attended by representatives of many peace organisations from Europe and the United States. The League of Nations was established in January 1920, following the adoption of the Covenant of the League of Nations at the Paris Conference in 1919. In terms of the legal framework, the League of Nations did not make any formal provision in the Covenant for the participation of NGOs. Article 24 of the Covenant uses the term "all international institutions" and deals with the relationship between the international organisations of NGOs and the League of Nations. During the period of the League of Nations, intergovernmental international organisations and NGOs were generally referred to as international organisations (Jiaonan, 2012; Lee, 2011; Rodela et al., 2017). In 1921, the Executive Yuan of the League of Nations decided to make an expanded interpretation of Article 24 of the Covenant, making it possible for the League of Nations to support unofficial and semi-official "international organisations", that is, international NGOs. According to the status of NGOs in the League of Nations, the scope of participation and rights enjoyed by NGOs are quite extensive (Hägerhäll, 2003; Hooi, 2018). NGO representatives basically enjoy the same rights and status as government representatives, except that they do not have the right to vote. But the good times did not last long. In July 1923, during the 25th session of the League of Nations, the Executive Yuan adopted a resolution declaring that the "international organisations" in Article 24 were limited to intergovernmental international organisations. Taking this as a sign, the relationship between the League

of Nations and the NGOs gradually began to shrink and regress. Generally speaking, the changing direction of this relationship is from listening to and absorbing the opinions and suggestions of NGOs in the policy-making process to being more inclined to provide relevant policy information and information to NGOs.

The final drafting and signing of the draught Charter of the United Nations are also inextricably linked to the tireless efforts and effective promotion of NGOs. In accordance with Article 71 of the Charter of the United Nations and Council Resolutions 288, 1296, and 1996, NGOs have been granted consultative status with the Council. The Social Council and the Economic Council will establish the Committee on NGOs as their permanent bodies (Sant, 2012; Tschimpke & Bongardt, 2013). In addition, both the Secretariat of the Social and Economic Council and the United Nations Department of Public Information have NGO sections. With the wave of globalisation, NGOs have become extensively involved in global governance.

As Lester M. Salamon said, "in recent years, there has been a very important wave around the world, in which markets and a significant range of social institutions outside the country play an important role." These institutions are labelled "non-profit", "voluntary", "civil society", "third" or "independent" departments; however, these institutions often contain a list of confusing entities—hospitals, universities, social clubs, vocational training centres, R care centres, environmental organisations, family counselling service agencies, sports clubs, vocational training centres, human rights organisations, and others (Runhaar & Polman, 2018; Wang et al., 2013). However, no matter how diverse they are, these entities share a common characteristic, which is mainly manifested in the following aspects: (1) organisation: these institutions have certain structures as well as systems; (2) privatisation: these institutions are institutionally separated from the entire state; (3) the nature of non-

profit: these institutions do not provide profits to their operators; (4) autonomy: these institutions primarily deal with their own affairs; and (5) voluntary: the members of these institutions are not subject to the law and they allow a certain degree of non-mandatory beneficence of time and money. NGOs have made rapid progress in the last two or three decades, attracting the world's attention and growing rapidly in number and size. In fact, a genuine "global association revolution" has emerged, representing the best of organised private and voluntary activity worldwide.

As shown in Figure 2.1, the distribution of NGO projects in China mainly covers the following aspects: economy, relief of the poor, education, health, environmental protection, communication, culture, science and technology, and sports. Their share varies, with environmental protection accounting for only 6% while the economy accounts for the largest share at 52%. Moreover, in developed countries, NGOs are more attractive to the public, especially young people who do not want to be bound by the discipline of large organisations. The middle class, which accounts for the main body of western society, is more and more indifferent to ideology and is tired of the "doctrine" struggle between political parties, which makes them more interested in non-ideological NGOs that pay attention to special issues (Jackson et al., 2006; Mohd & Ahmad, 2005; Nastechko, 2010). The party corruption and the similarity of party policies have pushed a large number of Westerners to the side of NGOs. Of course, political parties and NGOs also switch with each other. When some political parties weaken, they actually become NGOs with little political influence, although they sometimes retain the title of political party. On the other hand, some NGOs are growing in strength, and their political influence is also rising day by day, gradually developing into political parties (Hall & Taplin, 2007; Sej-Kolasa, 2009).

For example, the development process of the Green Party is the process of transformation from NGOs to political party organisations.

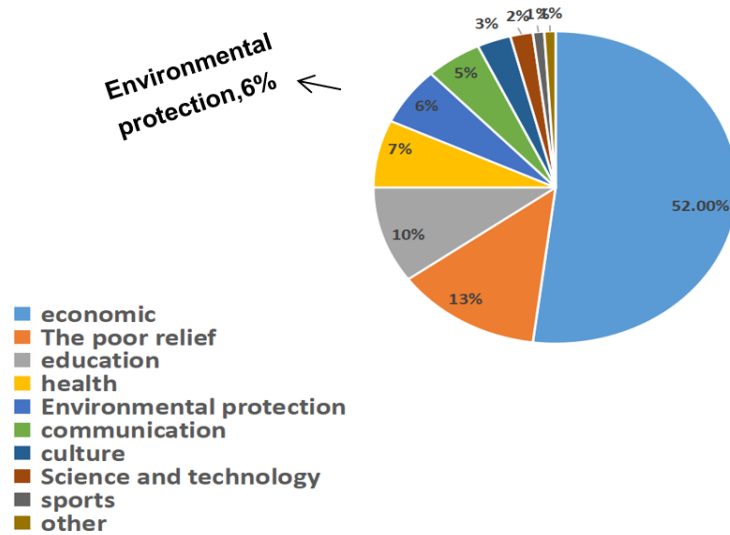


Figure 2.1 The Proportion of NGOs Projects in China (Fu, 2016)

2.2.2 The definition of ENGOs

ENGOs are an important part of the global NGO system, with the main purpose of providing environmental protection and social services for the public's environmental welfare. With the development of modern industry, the environmental problems in various countries are becoming more serious, which has been sharply criticised by the public. From an economic point of view, some economists have analysed the limitations of the government in dealing with environmental problems, so-called "government failure", and the whole society has gradually realised that the market system is also inadequate in solving environmental problems. In this social context, western countries generally set off a massive mass environmental protection movement, environmental public awareness has been unprecedentedly improved, and there has been the emergence of many purely environmental protections for the purpose of social groups (Mohammad et al., 2007; Seyf & Seyf, 2022). These environmental protection social groups have attracted many social members to

participate in various environmental protection undertakings of their organisations and gradually formed a strict organisational system and perfect financing channels. On environmental issues, ENGOs have begun to become the third force standing side by side with the government and the market and have achieved good results because of their public welfare and professionalism (Abd-Allah et al., 1998; Neba, 2008; Zhao, 2016). ENGOs were originally created mainly in the US, Europe, and other developed countries, while ENGOs in developing countries emerged relatively late and have been heavily influenced in many ways by developed countries.

Developed countries have a strong awareness of civil rights and environmental protection, producing more famous ENGOs at the international level (Gu & Jin, 2016; Ianos et al., 2009). Their size, influence, and financial resources are much greater than those of ENGOs in developing countries. After the 1970s, as more and more developing countries attached great importance to environmental issues, the public in developing countries also had a strong desire to form environmental protection groups and participate in environmental protection and resource conservation. Various countries have also gradually sprung up an upsurge in establishing domestic ENGOs (Hsu, 2015; Ianos et al., 2009; Ioncica, 2016).

The ENGOs established by the vast majority of countries play a role that is so important in the cause of environmental protection in all countries. For example, the ENGOs in the Philippines play a backbone role in pollution prevention and resource protection (Um, 2021). India is the largest country in the world with the most movements. There are two kinds of environmental movements in India that are world-famous: the tree-hugging campaign, and the Narmada Bachao Andolan (NBA), which was involved in the Save Narmada campaign.

With the classification and regard for NGO protection of the environment in China, academic circles have not formed a unified standard and specification, but it is mainly discussed around the relationship between NGO and the government (Ritvala & Salmi, 2012; Van Eeden, 2007). For example, after a comprehensive analysis of the political environment of China's NGO protection, Professor Knup illustrates it into categories such as the category of government organisation, the individual organisation category, and the category of voluntary NGO (Knup, 1997). Jonathan Schwartz examined the special status of China's protection of the NGO environment and divided it into three categories: government-run NGO, grass-roots NGO, and university NGO (Schwartz, 2004). The "dichotomy" of NGOs, i.e., top-down NGOs and bottom-up NGOs. The former refers to "NGOs initiated and established by the government and may be directly or indirectly funded and supported by the government", but this type of NGO is often controlled and managed by the government by doing the necessary activities, operations, and management in the long run. The latter explains the "NGO spontaneously formed by the people and mainly funded by society". This type of NGO has close links with the public and is mostly funded through a bottom-up approach, with less special support and direct control from the government.

In addition, there are two other official classification standards in China. First, according to the NGO legal form, it can be divided into three categories: (1) organisations registered with civil affairs departments, including social organisations, non-enterprise organisations and non-governmental foundations such as "Friends of Nature"; (2) unregistered civil affairs department organisations that are self-organised by the people but do not have the status of legal persons, including those registered with the industry and commerce departments that have obtained the status of legal

persons of enterprises but are responsible for environmental protection and public welfare undertakings, such as "Beijing Global Village", as well as a second-level association or fund project organisation attached to a unit or first-level association, and an unaffiliated, unregistered non-legal person organisation, such as "Green Home Volunteers"; (3) foreign chambers of commerce and foreign project organisations established in China, such as Roots and Shoots and other overseas or international NGOs. Second, the official classification criteria of the State Environmental Protection Administration are: government-led ENGOs, initiated by the government department from top to bottom; and grassroots ENGOs, spontaneously established by the private sector from bottom to top.

Obviously, academic circles at home and abroad have their own views on the concept, characteristics, and classification of NGO environmental protection. As shown in Figure 2.2, in China, ENGOs are mainly divided into government department ENGOs, spontaneously organised by the public, school communities, international ENGOs, and so on. Among them, the government department ENGO accounted for the largest proportion of 49.90%. Considering the specificity of the development of China's NGO environmental protection, the definition of the concept and characteristics of ENGOs mainly refers to the official statement of environmental state protection and its management.

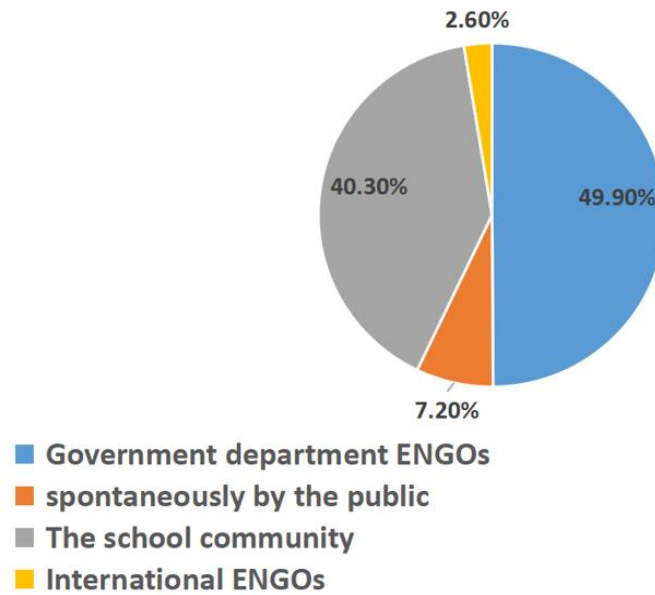


Figure 2.2 The Proportion of NGOs in China (Source: State Environmental Protection Administration of China, the Status of China's NGOs Investigation Report)

2.2.3 Environmental Bargaining

As third parties independent of the country and the market, NGOs take environmental protection as their main goal. Global NGOs have made indelible contributions to environmental protection and governance. The British scholar Thomas systematically explained the social role and composition of NGOs. Princen (2014) pointed out that in the case of environmental conflict governance, the environmental protection suggestions and governance schemes put forward by multiple NGOs would directly affect the government's public decision-making (Princen, 2014). Pacheco-Vega & Murdie (2021) summarised the tremendous achievements that NGOs all around the world have achieved in the past 35 years. Taking carbon dioxide emissions as an example, NGOs usually give priority to residents when carrying out environmental protection so as to increase the success rate of environmental protection. NGOs are a combination of social supervision and resource mobilisation (Li, 2010); that is, the support and participation of the public

should be fully utilised in environmental protection. Many ENGOs share and contribute resources and call on the public to work together to solve increasingly severe environmental and ecological problems. External pressure is one of the main reasons that drives NGOs to deal with environmental conflicts (Pacheco-Vega & Murdie, 2021).

When multiple subjects begin to take part in environmental conflict governance, ENGOs cooperate with the government, enterprises, and media to achieve their purpose of environmental protection. ENGOs in many countries in Europe and Asia have used the media as a powerful medium in dealing with environmental conflicts (Lester & Hutchins, 2013). People share and spread environmental conflict issues on various media platforms. Therefore, the media becomes a platform for the public to participate in conflict discussion, express their personal views, and promote the formulation and implementation of decisions.

With the continuous improvement of human environmental awareness, environmental conflicts have gradually expanded from the material level to the spiritual level. Zhang (2013) stated that the research on environmental protection organisations has been divided into two types, and it gradually shifts from static structural research to dynamic strategic research. People tend to analyse the framework of government, NGOs, and relevant stakeholders. When formulating environmental governance strategies, ENGOs often participate in management as legislators, whistle blowers, and private prosecutors (Cappelletti, 1993). They usually take part in environmental legislation, supervise governments, and help stakeholders prosecute environmental violators. With the changes in government policies, economic markets, public demands, and personal media platforms, the strategies of ENGOs involved in

environmental conflict management have undergone dramatic changes, and new environmental schemes have been produced constantly.

2.3 P-Xylene (PX) in China

P-Xylene (PX) is a hazardous chemical used in the manufacture of plastics. PX is a major commodity petrochemical and the most useful xylene that accounts for almost 85% of the total xylene demand worldwide (Kumar et al.,2022). PX is very harmful to the environment and human health. From 2007 to 2015, there have been frequent events by environmental groups against the construction of PX production facilities in seven cities: Xiamen, Chengdu, Dalian, Ningbo, Kunming, Maoming, and Shenyang. China is the largest PX producer, and the distribution of PX projects is shown in Figure 2.3. Table 2.1 lists the environmental mass events caused by the PX projects in China from 2007 to 2016. Recently, there have been public boycotts and demonstrations against the establishment of PX projects.

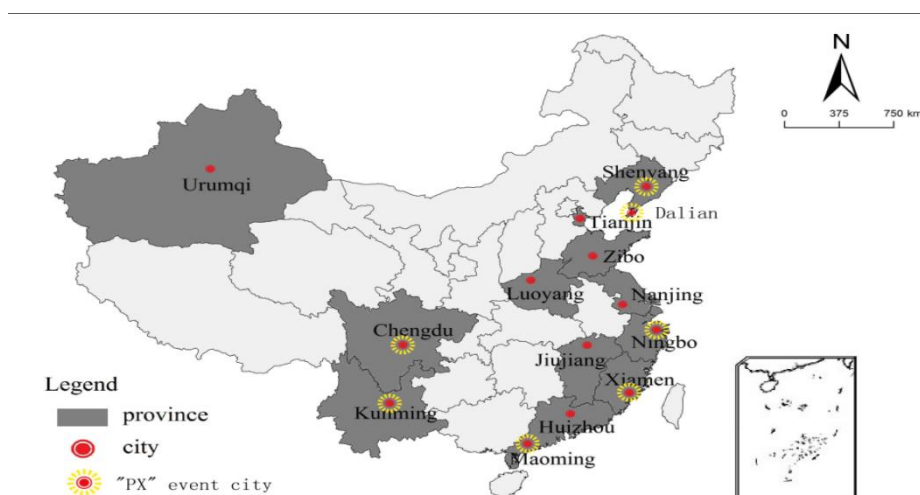


Figure 2.3 The Distribution of PX Project and PX Event Cities in China

Table 2.1 Environmental Mass Events Caused by the PX projects in China from 2007 to 2016

Time	Place	Causes	Forms
2007.06	Xiamen, Fujian	As the PX project is located near a residential area, 105 CPPCC members jointly suggested the relocation of PX project.	105 members of the National Committee of the Chinese People's Political Consultative Conference jointly suggested that PX project be relocated, and citizens "hang out" under police surveillance.
2007.08	Liulitun, Beijing	Residents are against building garbage incineration plants.	Several community residents demonstrated collectively.
2008.01	Shanghai	Magnetic levitation event: maglev railway is only 30 meters away from the community.	Tens of thousands of people gathered in Shanghai People's Square for a parade.
2008.05	Chengdu, Sichuan	Collectively boycott Pengzhou Petrochemical Project.	Wear a mask to "parade" and fight silently. The whole parade lasted about 2 hours.
2008.08	Lijiang, Yunnan	The villagers in Xingquan Village clashed with Gao Yuan Building Materials Company because of water pollution.	Approximately 300 people from both sides participated, 6 villagers were injured, and 13 cars were damaged.
2009.07	Liuyang, Hunan	Cadmium pollution in nearby chemical plants caused a large number of villagers to get sick and even die.	Hundreds of villagers blocked the town government and the town police station, and six people were taken away by the police station.
2009.11	Panyu, Guangzhou	Residents are opposed to the construction of large-scale waste incineration plants.	Hundreds of people demonstrated outside the municipal government office building.
2010.07	Guangxi, Baise	Long-term pollution of aluminum plant water source	Thousands of angry villagers besieged the aluminum factory with stones, homemade bombs, etc., and there was a large-scale conflict between the two sides.

(continue)

Table 2.1(continued)

Time	Place	Causes	Forms
2011.08	Dalian, Liaoning	Affected by typhoon, the impact of seawater caused the dam of PX factory in Fujia Dahua to collapse, and PX piggy bank posed a security threat.	Citizens spontaneously organized demonstrations in front of the city government.
2011.09	Jiaxing, Zhejiang	The environmental pollution caused by Jingke Energy Company caused demonstrations.	Thousands of people gathered at the entrance of Haining City to smash the company's signboard and some facilities.
2011.12	Shantou, Guangdong	People in Haimen are worried about pollution caused by Huadian project.	Hundreds of people gathered in the government and highways, blocking traffic.
2012.04	Tianjin	Collective demonstration against the PC project of Zhongsha Company	Thousands of citizens demonstrated in a "parade"
2012.07	Qidong, Jiangsu	Citizens are worried that the sewage discharge facilities proposed by Japan Prince Paper Group will seriously affect their lives.	Tens of thousands of citizens gathered in the city government to demonstrate, distributed the "Letter to the People of the City", and ransacked government offices.
2012.07	Shifang, Sichuan	Oppose the construction of aluminum copper project	The citizens gathered at the gate of the municipal government, and a few people forcibly attacked the cordon, pushed it to the gate of the municipal party committee, smashed the window, etc.
2012.10	Ningbo, Zhejiang	Demonstrations against PX project	Parade, violent conflict (bloodshed), Weibo
2013.04	Kunming, Yunnan	Demonstrations because the construction of PX refinery in Anning will seriously affect Kunming's environment	Spreading via Weibo and WeChat, followed by demonstrations.

(Continue)