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What Justice? Environmental Justice, Pollution, and Activism by ENGOS in China.

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Abbreviations and Terms used in this thesis

Abbreviations

AQI

Air quality index

CCCPC

Central Committee of the Communist Party of China

EIA

Ecological impact assessment

EJ

Environmental justice

ENGO

Environmental non-governmental organisation. Unlike NGOs, ENGOs only work with environmental issues.

UNHCHR

United Nations High Commissioner for Human Rights

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Preface and acknowledgements

The basis for my Master's thesis stems from my interest in environmental issues, activism, and Chinese environmental policies. China's environmental challenges are widespread and difficult to overcome, despite many efforts by environmental activists in attempts to achieve a healthier environment. As China's environmental challenges are increasing, there is a need to look further into the implications of environmental changes with an environmental justice-perspective. What the implications are and how they can be more effectively dealt with, is of great interest to me. Developing an approach to environmental challenges that maintains an environmental justice-focus, will benefit not only this generation but also generations to come.

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Abstract

This thesis aims to analyse China's environmental challenges in relation to environmental policies and environmental justice. The thesis discusses China's environmental pollution crisis which has been led on by rapid industrialisation, economic development, its large population, and many years of environmental neglect. Such challenges have been handled with varying results, by both policymakers and environmental non-governmental organisations (ENGOS). Heavy pollution in China is generally more concentrated in some areas than in others. The high concentration is usually found rural in areas where people who are already disadvantaged suffer more from environmental injustices, which can be seen through the development of "cancer villages". The public has in recent years gotten more rights to participate in environmental decision-making. This, in combination with increasing environmental issues, has made the Chinese public shown an increased interest in participating in the improvement of environmental challenges, particularly through ENGOS. This study emphasizes that questionable environmental governance, disinterest, and corruption are the main reasons why environmental clean-up in China has not been as successful as it could have been. The thesis highlights some of the ways in which ENGOS have been successful in making the Chinese government improve their environmental challenges. Further, some of the obstacles to implementing policy and achieving environmental justice (EJ) are described. I argue that environmental justice is a useful concept where Chinese environmental policies are to be considered, as it examines both environmental challenges and social issues. I do so while evaluating how strong EJ is in China today, and how ENGOS have impacted both EJ and environmental policies.

Keywords: Environmental justice, Chinese environmental policy, ENGO, pollution, climate change

Chapter 1

Introduction

This thesis is concerned with environmental pollution and environmental justice (EJ) in China. China is a relatively new superpower, which has experienced rapid economic development in combination with equally rapid population growth. Such an increase has led to significant environmental challenges, with China surpassing the United States as the world's worst polluter in 2006 (Lu & Gill, 2007). The vast environmental challenges faced by China and all its residents have led to many people becoming involved in environmental activism. Such activism is usually done through environmental non-governmental organisations (ENGOs). ENGOs were for many years not allowed to advocate for environmental justice but has in recent years gained more rights, even to file cases in court. However, the Chinese state and local governments persist in discouraging environmental activism.

The combination of being a recent superpower, facing extreme environmental challenges, while still to a large degree denying environmental non-governmental organisations the chance act to improve the environment, is unique to China. Environmental activism in China is mainly concerned with inaction shown by the Chinese government on environmental issues. Yet, there is substantial debate in China as to how environmental issues should be dealt with. How the governmental bodies' efforts are too weak to deal with the challenges that environmental change pose is a much-debated question. In this thesis, I will look at environmental activists' attempts at improving environmental policy and what the challenges are when doing so. The environmental challenge I refer to is air pollution, but some attention is given to water pollution. I will use the Chinese provinces of Hebei and Henan as case studies, as these are areas with significantly high air and water pollution.

Looking at issues of poor environmental governance, how environmental activists attempt to improve such governance, and how it affects environmental justice is of great interest to academic studies. There will not be truly sustainable development in China unless environmental justice is considered in environmental policy.

The concept of environmental justice (EJ) in China is, however, underdeveloped. A greater focus on environmental inequalities would likely improve on environmental challenges and give many people a better quality of life. Below, I outline environmental justice in China as a way to comprehensively analyse the matter of environmental activism.

The Origins of Environmental Justice

The concept of environmental justice (EJ) originated in the United States in the 1980s. It was widely distributed through the adoption of the principles of EJ at the 1991 First People of Color Environmental Leadership summit (Sze & London, 2008). It was introduced as a concept with similarities to environmental sustainability, to ensure equal access to environmental goods and services for everyone. The environmental justice movement in the United States is, like in China, is focused on anti-pollution. Unlike Chinese EJ, it is also focused on environmental racism. Heavily polluted, poorer areas mainly inhabited by people of colour were the first focus of EJ in the United States. This remains the main focus today. The part of the EJ-movement that works against environmental racism sprung out of the Civil rights movement of the 1950s-1960s. It worked on environmental challenges as they often negatively impacted communities of colour (Cole & Foster, 2000).

The environmental movement in the US has been made stronger by academia. US-based studies in the 1980s and 90s showed connections between poverty and risk of living in poor environmental conditions, in addition to connections between environmental risk and race. Further, many of the groups advocating for EJ started in smaller communities, but they quickly joined together into larger groups and committees, to further advocate for their cause (Schlosberg, 2009). Furthermore, political leaders gave support to the US-environmental justice movement. For instance, John Lewis, a representative for Georgia's congressional delegation, introduced the Environmental Justice act of 1992. The Act did not pass in Congress, but it did bring much attention to the EJ-movement all over the country (Cole & Foster, 2000). The movement gained further attention the same year through Bill Clinton's presidency when he appointed environmental justice-leaders who made EJ a significant part of the country's federal environmental politics (Skelton & Miller, 2016). The environmental justice movement in the United States gained widespread attention and engagement from both wealthy and poor communities, and a place in politics and academia. It is this environmental justice movement that got the ball rolling for environmental justice elsewhere.

In China, however, the concept of environmental justice has hardly been discussed publicly outside academia (Mah & Wang, 2017). The lack of attention does not, however, mean that there is not a critical need for it to be applied more frequently in the Chinese environmental context. I will examine the context within which the EJ in China is examined in this thesis.

Environmental Justice in China

Environmental justice's main focus is on principles of non-discrimination when it comes to

access environmental goods and services. When pollution is unevenly spread and does significant damage to already disadvantaged parts of the population, it is a breach of environmental justice. Research by the World Bank has revealed that out of the 30 most polluted cities in the world, 20 are found in China (Shapiro, 2016). Most of these are rural cities, with polluted air pollution mainly due to the heavy use of coal waste burning and vehicles (Vaughan, 2016). According to the World Health Organisation, more than 1 million people died from air pollution in 2012 (Vaughan, 2016). The increasing inequalities in terms of exposure to pollution are damaging to a person's environmental safety and health. Air pollution in China has become so severe that the effects of breathing outdoor air regularly would likely be in breach of the human right to life. These dangerous levels of pollution have raised much concern, with a call for environmental justice. EJ is a multidimensional concept, but equal access to environmental goods is the most significant part of it. Environmental injustices arise when a member of an already disadvantaged group, such as a minority group, suffer disproportionately from environmental risk or harm. Conversely, EJ is present when environmental dangers are equally distributed with no direct or indirect discrimination. In addition, access to participation in environmental decision-making is important for environmental justice to exist, according to Shapiro (2016). But such participation is only partially in place. Indeed, in China, even rural areas suffer significantly from water contamination, while cities have the most atrocious air quality problems. The poorest parts of the population are less likely to afford to move away from places with heavy pollution as they likely cannot afford it. However, EJ is just beginning to be acknowledged in China.

Status of knowledge of environmental justice

Environmental justice as a concept started gaining attention in China when researchers began writing about EJ in the late 1990s. Despite EJ getting increasing attention in the academic world, it is still not widely used when environmental policy is considered (Mah & Wang, 2017). Environmental justice in China is mainly focused on issues of rural/urban differentiation in environmental inequality, not on racism as in the United States, writes Mah & Wang (2017). Outside academia, environmental justice is not a well-known concept for the general population or governmental decision-makers in China. This lack of knowledge in and of itself is a limitation to environmental justice.

However, there has been some minor advancements for environmental justice. Xie (2011a), comments on such advancements by mentioning that it can be seen, for instance through the National Congress of the National Party of China in 2007, which allowed citizens to voice

their concerns on environmental decisions. She continues by saying additional advancements have been increased openness and transparency about environmental issues and policies being implemented, in combination with increasing participation by the public. Input from the public on environmental policies has not always been welcomed, but with access to the internet, the recent gains are a sign of a growing degree of independence. As a result, China has during the past ten years seen an increase in environmental non-governmental organisations and its association, which has prompted environmental activism.

Several environmental activists and ENGOs have tried to change the inaction on environmental issues by the Chinese government. Protests, campaigns, and collection of signatures have not been done without consequences for those involved. The severity of China's environmental challenges and how these issues are dealt with has become important to citizen's perceived thoughts of the Chinese government. When the issues are not properly dealt with, it has often led to social unrest (Xie, 2011a). This again has led to the Chinese government feeling uneasy about activists, as they may be perceived as threats to the governmental political power. For these reasons, newer thinking on environmental conservation indicates that there is a need for a different legal framework when considering environmental issues.

Throughout the thesis, I will argue that the Chinese government is not doing enough to increase environmental justice, nor to limit the impacts that the tremendous environmental challenges pose for environmental justice in China. In the next subsection, I will address the objectives and research questions I used when I analysed information for the thesis.

Objectives and Research Questions

This thesis aims to examine air pollution, and how state environmental policies impact environmental justice in China, in addition to how environmental justice plays its part in Chinese environmental policies. I intend to provide a comprehensive analysis of environmental justice' standing in China and how environmental policy has the opportunity to improve EJ, as ENGOs try to make the Chinese climate healthier. I aim to assess ENGOs and environmental activist's actions to improve environmental justice in China, and how Chinese environmental policies are affected by these actions. Throughout the thesis, I will identify to what extent the different actions to achieve environmental justice has impacted Chinese environmental policies, especially regarding air pollution. The information sources I relied on are found in official state reports, peer-reviewed articles, news articles, and books.

For the purpose of the thesis, I will pose three questions intended to highlight environmental justice, environmental policy, and ENGOs role in environmental activism in China. The questions and objectives are as follows:

A) *Do Chinese environmental policies negatively affect environmental justice in China?*

This question will seek to find out whether or not the Chinese government's environmental policies restrict environmental justice in China. I did so by looking at environmental activism in China, especially by considering the status of environmental justice. I will examine why China often make great environmental policies but seem to struggle to properly implement them.

B) *Have efforts by ENGOs and environmental activists to improve environmental challenges in China affected how the Chinese government works with environmental issues?*

I aimed to examine this research question by analysing if/how ENGOs and environmental activist's attempts to improve Chinese environmental governance affects environmental decisions and policies in any way. I do so by looking at how environmental policies affect environmental justice.

C) *What is the connection between environmental activism, environmental justice, and environmental policies in China?*

I address this question by investigating attempts to improve environmental governance. I did so by looking at the effects of environmental activism on Chinese environmental policy, and some examples of failed and successful attempts to improve or bring attention to air pollution.

This thesis is comprised of eight chapters. Chapter 2 highlights, albeit briefly, the literature review framing the study. Chapter 3 is concerned with methods of the study by which the research questions were implemented, while chapter 4 examines activism, environmental justice, and environmental policy in the context of China. Chapter 5 deals with how the Chinese shifted towards environmentalism, and chapter 6 examines how environmental activism works in China. Chapter 7 presents case studies of the provinces Hebei and Hebei, where cancer villages can be found. Chapter 8 finally synthesizes the study and makes conclusions.

Chapter 2

Theoretical Framework

My thesis focuses on environmental justice. Throughout the thesis, I use environmental justice as the main framework when analysing the literature and considering EJ's standing in China. The information applied to the main framework and my secondary frameworks is based on the development of environmental injustice which can be seen in China. The theoretical frameworks include, in addition to EJ, community participation in policy-making, and a human rights-based framework. The frameworks used allows for different arguments, providing a thorough overview and response to the research questions. In the case study, I look at urban-rural differences in relation to environmental challenges by using all the different frameworks.

Environmental justice

Justice and its relationship with humans as a social concept is the focus for many theorists, but today there is need to take justice a step further, and include human's relationship to nature (Ali, 2001). This is what environmental justice does. Environmental justice is a useful concept when the connection between environmental harm and societal injustices are to be considered, with the ultimate goal of reducing environmental urban-rural differences. Unfortunately, in academic literature, there is a lack of newer materials on the status of environmental justice, especially how it relates to environmental policy in the Chinese context.. The focus of EJ, therefore, needs to identify the institutions and practices that are damaging to environmental justice and to develop new institutions and practices that can improve the injustices (Schlosberg, n.d). Using EJ is especially important when environmental policies are to be considered, as these often negatively impact environmental justice. Many people in China continue to live in health-endangering conditions, and those who do, tend to have even more heavily polluting industrial factories placed near their residences. Such displacement of environmental harm signals a clear need for EJ to be given much more attention in China by civil society, governmental decision-makers and ENGOS. Environmental justice has the potential to offer meaningful insight into environmental challenges, why some people suffer disproportionately, and how environmental policies can be changed for the better with the use of EJ. Environmental justice is, therefore, used as a theoretical framework to look at environmental equity and justice in this thesis.

When applying EJ to the thesis, I systematically investigated the social inequalities suffered by people in rural areas, due to the unequal distribution of heavy pollution. I undertook my review of EJ in China based on a search of government released information, peer-reviewed articles, and news articles to get updated information. The literature was often hard to find and not recently updated. The existing literature was inadequate, mainly because the Chinese government is often quite secretive about their negative environmental statistics. If academics and the general public are allowed more access to environmental information, it can be a stepping-stone to stronger environmental justice.

Environmental justice as a concept highlights that people who are the most disadvantaged by the injustices need to be able to voice their opinions and concerns. To be able to do so, disadvantaged people need more power to be heard (Lora-Wainwright, 2017). Therefore, the environmental justice-framework is closely related to the secondary framework I used, community participation.

Community participation in policy-making

Community participation should be considered a necessity when developing new environmental policies, as it can increase public satisfaction with the outcome. Environmental issues are often complex, thus participation by the public who has a wide range of knowledge can be an effective way to reach goals for new policies. Many policy-development processes depend on public support to be successful, and community participation has proven to be an excellent way to foster public support and legitimacy for decision-makers (Boudjelas, 2009). When decision-makers communicate the different steps throughout the policy-making to the public, all parties to the community participation has the possibility to influence the outcome and being positively affected by that outcome (Reed et al., 2009).

In this thesis, the role of community participation has been used as a framework for analysing the role of the public when interacting with decision-makers on the topic of environmental policy. Finally, I used a human rights framework.

Human rights framework

The UN human rights framework will give me a human-rights based view of the environmental situation in China. The framework focuses on inequality and discrimination and highlights the need for policies to be based on human rights. It looks at those who are in a vulnerable position and discriminated against (OHCHR, 2006). Such an approach is similar to

an environmental justice-approach. Using this framework in combination with the environmental justice-framework will be useful in my thesis as poor environmental policy-implementation and its effects on civil society is a major part of my research. To understand the reason behind China's current environmental challenges, it is important to consider the country's environmental history. Below, I briefly mention historical events that have contributed to environmental degradation.

Background of China's environmental challenges

China's history of environmental degradation is a long and mixed one. The drivers behind the challenges we see today are largely due to harsh development-policies that originated during Mao's rule. Most countries in the world today are experiencing some sort of environmental challenges. What makes China different from other countries in terms of environmental issues, is the magnitude of the challenges together with the size of the country and its population. No other country is experiencing the same level of environmental pollution, a very large population size, and a huge land-mass. A long history of rapid population increases, and significant economic development have led to a decrease in environmental quality, especially regarding water, land, and air. Such environmental challenges pose a massive challenge for the Chinese government regarding how they should limit the negative impact on the environment. Many of these challenges arose during the rule of Mao.

Philosophical beliefs and the influence of Chair Mao

For centuries, the overuse of environmental resources has been the cause of natural disasters, hunger, and wars in China. Additionally, the environmental challenges seen in China are closely connected to the management of a very large population and their need for natural resources, which had an inevitable negative effect on the environment. Economy (2010) extensively comments on this. She writes that Chinese cultural traditions seem to influence the way decision-makers have gone about their business, in relation to the exploitation of natural resources, and how by-products of their industrial factories have been tackled. A likely cause is that China has become prosperous under a rule which has promoted economic growth at any cost. With the introduction of Buddhism to China, many people opened their eyes to the negative environmental development and wanted a move to better conservation of nature. This change was mainly due to Buddhism's advocacy of the inherent intrinsic value of nature. Still, this new way of thinking for many was not enough to stifle the environmental degradation. China's population doubled during the 18th and 19th centuries, which put an

enormous strain on the environment. When Mao took power, he argued that China's large population was a good thing and not an issue that needed to be dealt with. It is likely that the Mao-era slogan "Every mouth has two hands", combined with the glorification of mothers for producing generations after WW2, contributed to the explosive population growth (Shapiro, 2016). Mao believed the Malthusian argument that population increase will lead to insufficient food-supplies to be false because it could be solved through increased production. Increased production would also ensure China's self-sufficiency. Mao's belief in the exploitation of nature to increase production may be visualized in the Great Leap Forward campaign that started in 1958. The campaign was meant to develop China into a Communist nation and to achieve industrial advancements greater than those of the United States and Great Britain (Economy, 2010). The Great Leap Forward achieved its goals in terms of production, but it also had a counter adverse effect on the environment. For example, during the years of the "Leap Forward" campaign, the production of steel and iron increased significantly. A large part of the production happened in ordinary citizen's backyards. The result was a major increase in pollution. Thus, wetlands, land, air, forests, and water became more polluted, and Chinese citizen's health suffered (Economy, 2010). The pollution of the natural environment eventually led to a country-wide famine during which many millions died between the years 1958 and 1961 (Chang & Wen, 1998). To rebuild any environmental damage due to rapid industrialisation under the Great Leap Forward, Mao initiated what he called a "cultural revolution" which aggravated the environmental damage even further, due to a continued desire for economic growth, writes Economy, 2010. Such actions have been drivers for the environmental challenges and environmental injustices seen in China today. Next, I will consider China's environmental justice, under the given technological and cultural circumstances.

Environmental (in)justice in China

As shown, China has for many years used environmental goods without much concern for the finite use of natural resources, as economic development has been the top priority. Perhaps, carry-over of past policies that value economic development is still present in Chinese society, drawing much inspiration from Western technological influence. After Mao's social and Cultural Revolution, some efforts, with varying results, have been made to reduce environmental harm and to increase environmental justice. This notwithstanding, there is still insufficient understanding of the concept of EJ in China. To emphasise, in China, the focus of environmental justice is on the distribution of environmental quality and access to

environmental goods. This is however counterbalanced by the widespread poverty and poor living conditions found in most rural areas (Ma & Schoolman, 2012). As environmental justice demands better conditions for those who have been victims of environmental pollution, improvements in terms of EJ are taken as access to improved environmental quality. In some rural areas pollution has become so high and EJ so low, that villages are experiencing disproportionately high rates of cancer. The high cancer-rates has led to the villages being referred to as cancer villages. The issues of cancer-villages will be discussed in the case study. In the next subsection, I will provide a brief introduction to environmental non-governmental organisations in China.

Environmental non-governmental organisations in China

In China, there is a dire need for more rights to operate be given to citizen-organised environmental organisations. While ENGOs can legally operate, they are at the same time heavily regulated by authorities. These factors make environmental activism in China differ from activism seen in most other countries.

Organised environmental activism against industrial pollution in China first began developing in the 1980s. It and was then usually carried out by the social elite, journalists, and policy-makers (Wu, 2013). The mid-1990s are often considered the “starting point” of the environmental movement in China (Lora-Wainwright, 2017), as the movement then became more inclusive and involved people from any position. Such inclusiveness is likely connected to a more relaxed political atmosphere (Sima, 2011). Such activism happens today through organised meetings, and especially through non-governmental organisations. It is evident that the Chinese government has adopted a more positive attitude toward ENGOs as the rules for operating have become less strict (Economy, 2005). Chinese ENGOs have in some cases been very successful. Both for immediate relief for pollution-victims, and to put pressure on policy-makers. But, despite recent calls by ENGOs on improvements of environmental justice through the public, media, academic, and political action, EJ remains inadequate (He, Fang, H., Ji & Fang, S.2017). These are topics I will elaborate on throughout my thesis.

In the next chapter, I will explain how I performed the research for my thesis, and I will give information about the research questions and how they were analysed.

Chapter 3

Method

The main topic for my thesis is the connection between environmental policy, activism, and environmental justice. Researching and analysing different aspects of these topics was, therefore, the goal of my research. The literature I used covers these main topics. By using different sources of literature, I covered topics of my research questions by looking at:

1: The evolution and reasons for the environmental challenges we see in China today, current levels of pollution, and how this impacts people living in China.

2: The emergence of environmental activism, what sort of effect environmental activism has on Chinese environmental policies, and how this can have a positive or negative impact on environmental justice.

These topics are discussed throughout the thesis.

Sources

During the research process, I used several secondary sources. These sources were all on the topic of environmental justice, pollution and activism, as these are the main topics for my research questions. I had planned to conduct interviews to get first-hand information, but this failed. Thus, to address the connection between the three questions, I had to conduct my own research through the use of secondary sources.

In order to answer my research questions, I needed to collect data. I used multiple sources, such as news articles, documents deriving from the Chinese state, books, and peer-reviewed articles. Using several sources of data is called “triangulation” (Berg & Lune, 2012). I used this method when researching information for all my research questions (See below). Using triangulation to find similar information in multiple sources allowed me to ensure the information was consistent throughout the different sources and the validity and credibility of the content. After I had gathered a great deal of information, I started analysing the content. I divided the content of the sources into categories determined before starting the analysis, according to Bryman’s (2016) recommendations. Doing so increased my chances of uncovering patterns and themes in the sources, and to see what topics required more information (Berg & Lune, 2012). Lastly, I needed a way to manage the vast amounts of data I obtained. To do so, I followed Berg & Lune’s (2012) suggestion and developed a filing system. Each type of research document was stored differently, according to topics and/or

themes I found while analysing the content. This process is called “coding” (Bryman, 2016). I used several peer-reviewed articles for my thesis, and many of them had different topics. The topics I sorted data after were: Environmental justice, environmental activism, environmental activism cases, history, environmental policy, governmental structure, and pollution. Dividing the data into categories is helpful when looking at and retrieving findings from the data collection, writes Berg & Lune (2012). Some of the sources I used to find information were online books I read using a Kindle, a device used for reading books online. Notes and highlights from these books were therefore stored electronically on the Kindle. The information I found, was used to examine my research questions.

Research Questions

When looking at my research questions, I may have been too pessimistic in some areas. For my first research question, I hypothesized that environmental policies in China restrict environmental justice. I did so because decision-makers often do not act on environmental policies and agreements which are already in place. Local decision-makers are often the hardest to convince to adopt more environmentally friendly solutions, as they oversee economic development and want to keep as many people as possible employed. Another important reason for non-compliance with environmental policy is loopholes in environmental law. Industrial polluters often avoid pollution-restrictions this way. It is also a way to avoid publishing pollution-data.

For my second question, my hypothesis postulated that China’s government is unaffected by ENGOs work on environmental challenges. This has proven to not be entirely true. ENGOs have in recent years gained more recognition by the Chinese governmental powers. Today, they are, for instance, legally allowed to bring environmental cases to court. Much pressure from ENGOs both internationally and within China have put more focus on environmental issues. However, there are still difficulties for ENGOs to establish themselves while trying to influence environmental policy. Local governments remain the most difficult group to influence through environmental activism, while high ranking officials generally have a more positive attitude towards ENGOs. There are still many inadequacies in the Chinese legal systems that allow polluters and decision-makers to refuse court cases by ENGOs, and to ignore policies ENGOs have helped develop. Such inadequacies are frequently abused by local decision-makers.

Regarding my last research question, I hypothesized that environmental policies in China restrict environmental justice, as decision-makers often do not act on environmental policies

and agreements which are already in place. As shown throughout the thesis, in many instances, this is definitely the case. As in the case mentioned above, local decision-makers are often the hardest to convince to adopt more environmentally friendly solutions. I speculated that the Chinese state government is not interested or unable to lessen the environmental challenges in rural areas, while they instead focus on large cities where pollution is more “visible” to the public eye. This hypothesis is largely true. The focus for lessening environmental challenges has been on the larger cities, especially in connection with international events such as the Olympics in 2008 where a significant reduction of pollution was achieved (Schleicher, Norra, Chen, Chain & Wang, 2012). Further, heavily polluting factories have been moved from urban areas to rural areas, where the general population is less educated than those living in urban areas. A likely cause for the move is that people in rural areas tend to be more reliant on the factories for development and jobs, they are, therefore, less likely to complain about the pollution the factories produce. There has, however, been some improvement in rural areas with the introduction of new policies, such as the Environmental Protection Tax Law and the state government putting pressure on local governments to try to improve on their environmental challenges. With these verifications, I will now focus on how the different questions were addressed for the purpose of this thesis.

For my first research question, I analysed the literature to find the connection between environmental policies and environmental justice in China. Much of the information I found on environmental policy, was in official documents released by the Chinese government. These documents helped me gain an overview of policies, statistics, and legal obligations by the state to its citizens. I assumed this would be an easy task, but the amount of information I found was overwhelming, and I had to develop an organising-system for the data.

For the second research question, the analysis was focused on the work by ENGOs and their effect on how the Chinese government works with environmental issues. Here, I needed to find information about environmental activism and its impact on policy. To do so, I consulted published articles and books on the topic. Most of the information I found shared the opinion that environmental activism has, to varying degrees, had a positive impact on environmental policies. Additionally, most sources agreed that ENGOs could do more if it was not for the Chinese state and local governments putting restrictions on how ENGOs operate.

For the third and final research question, I looked at the connection between environmental activism, environmental justice, and environmental policy in China. For most of the research for this research question, I used peer-reviewed articles. Peer-reviewed articles have the advantage that they are read by several other researchers before being published, so they

usually have reliable information. The articles I read had a similar opinion that there is a significant level of environmental injustice in China. However, there were contrasting opinions on what the solution to this issue could be. For me to form an educated opinion, I needed to look at all the literature together and compare the opinions and information. I also used news articles to get the most updated information available on the issues. With the help of this literature, I was able to look closely at the connection between environmental justice, pollution, and activism in China, and to form my own opinion.

For all the research questions, I kept in mind the trustworthiness of the sources. In China, there is a significant degree of deliberate disinformation within the government. Thus, when reading any document developed by the Chinese government one must use caution and double-check information found, as the information could be propaganda-material. Not only Chinese governmental sources have a chance of being biased, which is why all information also needed to be checked and compared against the information found in other sources. Generally, the information in the Chinese reports was more optimistic about the numbers stated than information found in other non-Chinese state sources. This variation in opinion is a factor I needed to keep in mind throughout the thesis. The news articles I used were all from trusted news agencies, both within China and internationally. I found quite a few articles from blogs and news “agencies” that I had not heard of before, which had some interesting information on them. Nonetheless, I chose not to include these as I considered the trustworthiness of such websites to be too low in quality and reliability. Below, I talk about how I collected the data for my thesis.

Data Collection

The thesis is based on literature reviews with a case study, because as previously mentioned, my attempts to conduct interviews failed. The methods I used to carry out the literature review consisted of several parts. Firstly, finding and reviewing literature which deals with air pollution and environmental activism in China. Secondly, analysing official Chinese state reports for relevant information about air pollution and the changes over the years. Here, quantitative data was of importance. Further, I looked at environmental-activism cases, and how the Chinese state and local governments dealt with such cases, and how they relate to environmental justice. Finally, I closely examined the provinces Henan and Hebei, and how pollution is tackled there. During the data collection and thesis writing process, I encountered some challenges.

Difficulties and limitations

While undergoing the processes of analysis, I found the research process cumbersome. I expected to encounter some challenges during the research process, as when working on a large project such as this, there is bound to be some difficulties. The main limitations of this thesis were getting a visa, finding interviewees, and language.

Before I started writing my thesis, I investigated my options for going to China to carry out field research. After doing research on my visa-options, as a Norwegian student researcher, it seemed like my options were limited. I, therefore, decided to attempt to carry out qualitative interviews online, from home. Doing so proved much more difficult than I expected. I attempted contacting different ENGOs for my interviews. I sent e-mails to multiple organisations that seemed to work on issues relevant to what I was researching in my thesis. However, sending out a two-digit number of e-mails asking different organisations if they were, or knew anyone who might be interested in participating in interviews, yielded no results. I had planned to dedicate most of the thesis to analysing and implementing the results of the interviews into my thesis, which would be based on people's own experiences of pollution, activism, and environmental justice. As my initial plan failed, I needed to re-plan my thesis and research questions. My research questions which were related to the interviews were based on people's own, lived experiences with environmental activism and environmental injustices. Therefore, my plan B was to undertake case studies to find secondary sources which provided me with similar information to what I wanted to get from the interviews and to do a case study. For the case study, I decided to analyse two of the most polluted provinces in China, namely Hebei and Henan.

Another challenge I encountered during the research process was my inability to read Mandarin. For this reason, I had to rely on information found in English. Much of the information I found referred to through other resources, was in Mandarin. However, the language-barrier was only a minor inconvenience as I found a great deal of information in English, and many Chinese state-documents were available in English.

In the next chapter, I will discuss my first research question and look at the connections between activism, environmental justice, and environmental policies in China.

Chapter 4

Activism, Environmental Justice, and Environmental Policy

“Citizens of the People’s Republic of China have the right to criticize and make suggestions on any State organ or functionary. Citizens have the right to make to relevant State organs complaints or charges against, or exposures of, any State organ or functionary for violation of law or dereliction of duty”. – Article 41 of the Constitution of the People’s Republic of China (Amendment from 2004)

This chapter aims to address the first research question, which looks at if Chinese environmental policies negatively affect environmental justice in China. China’s governmental system has often been called excessively state-led (Ho & Edmonds, 2007). This is not entirely correct, as the emergence of environmental activism tells a different story. Participation by the public through environmental activism, ENGOs, and decision-making processes have adapted to the state-led conditions in China. They have through their adaptations had a positive impact on both environmental justice and environmental policy. This chapter looks at the development of environmental activism, its effects on environmental policies and how this again affects environmental justice.

Environmental Activism in China

Chinese environmental activism differs from the “common” image of activism wherein people take to the streets and put up barricades in opposition to the governmental powers. Instead, Chinese environmental activism is to a large degree non-confrontational, likely because China gives a limited space for civil society to speak up, writes Ho & Edmonds (2007). Chinese environmental activism differs from activism elsewhere with its method of adaptation much because it has developed within a semi-authoritarian governmental structure. At the same time as it attempts to limit environmental activism, it approves of activism. Such a structure has caused unwritten rules that most ENGOs seem to obey. Furthermore, Chinese environmental activism is focused on local rather than country-wide issues, continues Ho & Edmonds (2007). Most Chinese ENGOs use their role to engage in rational discussions with state agencies, inform the public, and bring environmental cases to court. ENGOs and non-organised leading activist have been trailblazers for the voicing of non-governmental opinions on policies. This has resulted in the redistribution of social demands for a healthier climate. Activists have taken many political risks by testing the lines of public advocacy (Wu, 2013).

The rise of ENGOs has not happened without the Chinese government putting restrictions on how these organisations operate (Xie, 2011b). Even getting official status as ENGO has been difficult (Wu, 2013). The operational difficulties for ENGOs arose after the Maoist revolution in 1949 when Chinese government officials started seeing independent organisations run by civilians as a threat to The Communist Party. A strict method of registration for all such organisations was then implemented. The most important rule is that an organisation needs to be approved by a government agency to be registered and legally operate. The agency which approved the ENGO is then responsible for most of the groups' affairs. Thus, Chinese ENGOs' claim to be non-governmental is in many cases not entirely true, as the organisations are often, at their core, controlled by the government. Civil society and pro-environmental activism are in that way penetrated by the state to commit to actions the organisation otherwise would not perform. On the more promising side, the registration process for some non-governmental organisations has been made easier from 2011. The chosen type of organisation no longer needs a supervisory body. However, this system is yet to include environmental organisations (Shapiro, 2016). However, those who squeeze through the bottleneck can make a great change in Chinese environmental policies and EJ. Since its popularization in the 1990s, environmental activism in China has gained much attention both within and outside the country's borders, much due to people's adaptation rather than opposition to the political system (Ho & Edmonds, 2007). Through such adaptation, environmental activism, especially through ENGOs, has been able to positively influence environmental justice and environmental policies.

The Status of Environmental Justice in Public Participation

Access to environmental justice is important, both for the environment and people's health. China's government has in recent years put in much effort to achieve such rights. Although some progress has been made, there is still a long way to go.

Chinese citizens have access to improve environmental justice using the courts. These rights are, however, not always followed through on by the government. He (2019) gives examples of some of this inconsistency. For example, in 2007, there were more than 0.1 million environmental disputes, but less than 1% reached the courts. In 2016, 187,754 environmental resource civil cases and 16,373 environmental resource criminal cases were filed with the tribunals. However, only four environment resource civil cases and two environmental resource criminal rulings were made by the tribunals. A reason for this is that the relevant

environmental laws and policies have failed to give people a good legal standing of the right to access to environmental justice-information. The high chance of losing or never even having their case heard is likely a reason why many people did not attempt to report environmental problems. To achieve environmental justice, both ENGOs and citizens need to be empowered with more alternatives for using their rights to access environmental justice. This can be done through public participation.

Public participation can be used to increase public enthusiasm for policy-making processes, and environmental justice. Here, I intend to make comments on the opinions of Xie (2016) on these issues in relation to environmental justice. As rural residents are those who suffer most from environmental injustices, they are those who would benefit most from public participation. Public participation by rural residents channelling their discontent into environmental movements has, therefore, become increasingly popular. Unfortunately, public participation does not always lead to the desired outcome, and people are frequently punished for advocating for higher levels of environmental justice.

It has been suggested that the Chinese government only encourages public participation to develop a higher level of legitimacy for themselves. Public participation is normally not allowed until the end of the process after decisions have already been made. Such decisions are, understandably, often not well-liked by the residents who will be affected by the decisions made without them. Unfortunately, a common approach by residents to environmental issues is non-responsiveness. This is frequently seen in rural areas. Non-responsiveness could be due to low levels of knowledge of environmental issues, fear of backlash from authorities, or a consequence of the limitations to access public participation. Fear of backlash from authorities is a genuine fear, especially for rural residents, as their efforts have proven to be less successful, and receiving much backlash, despite going through the same formal procedures as urban residents. The increased use of environmental activism has helped relieve some of the stigma surrounding speaking up about environmental issues. This has helped improve environmental justice.

Overall, access to participate in environmental decision-making cases has improved in recent years. Such rights have had a very positive effect on environmental justice, as people are now able to speak up about environmental challenges and have something done about them. But, there are still big challenges to actualize these rights, as many cases are not even taken up by the tribunals.

Most of EJ-issues lie within environmental policies, which usually look good on paper, while the actual implementation remains poor.

Good Policies, Poor Implementation

As mentioned earlier, rural residents suffer more from pollution than urban residents do. Efforts by state and local governments to improve environmental justice, through public participation and by allowing ENGOs, has so far been weak. Chinese state and local governments have tried to fix the lack of environmental justice through environmental policies. However, perhaps the most challenging factor to environmental justice in China is the big gap between policies that are written down and agreed to, and the actual implementation. Within this gap, lays the paradox of difference in implementation of environmental policies on the local and central government level (Ran, 2013).

The poor environmental quality in China is costly economically, socially, and health-wise. The decline in Chinese environmental quality can, for instance, be seen in the last report assessing the state of the environment in China, which was published by Chinese authorities in 2018 (Ministry of Ecology and Environment, 2018). In the report, it becomes evident that several billion tons of Carbon Dioxideⁱ and Sulphur Dioxideⁱⁱ were emitted in 2017, ensuring China's continued role as the world's worst polluter. Complaints from the public about poor environmental conditions to environmental authorities has increased by as much as 30 percent each year (Ran, 2013). Formal environmental protection agencies have been established to ensure the actual implementation of laws and policies. Sadly, many policies have not produced the effect that they were meant to (Greenpeace, 2011).

The most significant challenge to these policies and laws is local governance. Local officials have a significant level of power, and can in many cases, choose not to implement environmental policies. The state government has only partial control over policy implementation where there is a local government. The lack of implementation by local governments is often due to conflicts of interest between the local and state decision-makers (Ran, 2013). In addition to local governments having considerable opportunity to do as they wish, they usually also have much pressure put on them to achieve economic development and keeping jobs for local residents (Lieberthal, 1997). Such an approach to environmental policies is likely to create distorted policy outcomes. Furthermore, manipulation of statistical data to make pollution-issues seem better than what they actually are is frequently used by local officials. The information is falsified to show an incorrect image of environmental improvement. Researchers have pointed out that data manipulation has become routine for

local officials, because of the pressure and hard targets to achieve by the state government (Ran, 2013; Chen, 2010). Manipulating statistical data is not a difficult task, as the state government does not have a framework in place to check if the data is correct, and local governments are allowed to use any method of measurement that they like. Moreover, implementing environmental policies is very expensive for local governments. Local governments can apply for financing from the central government, but this is a time-consuming process. Often the money does not arrive in time to solve environmental issues during the best season, as some operations for environmental improvement are dependent on the weather. Or, and while local government waits for financing, the environmental challenges worsen, and even more money will be required. This vicious circle is a likely reason for many local decision-maker's disinterests in solving environmental issues. Further, China's political system operates in a way that gives many choices to local authorities to do as they please, with huge amounts of pressure being put on further economic development. When the (false) positive environmental effects are shown, the decision-makers do not get pressured into further environmental improvement. Consequently, local decision-makers are politically incentivized to manipulate the statistical data (Ran, 2013).

This shows that there is a need for stricter rules to be applied to decision-makers. The manipulation of statistical data is creating a false sense of environmental improvement, and so the data must be overlooked and cross-checked by another decision-making body, to ensure correct results. Doing so will likely create more accurate environmental statistical data, which again will show to what degree environmental action needs to be taken.

Incentives by the central government make it easy for local decision-makers to make their own rules, and to avoid implementing environmental policies. This is often justified on the grounds of local economic development (Ran, 2013). When local decision-makers are faced with the dilemma of continued economic development or environmental improvement, the environment usually loses, and so does environmental justice.

The belief held by many Chinese officials that nature and climate must be sacrificed to achieve continued economic development has been challenged by ENGOs, in order to achieve environmental justice. Despite policy implementation challenges, there has been a clear shift toward environmental improvement in China, which may help achieve EJ. Chinese state and local governments have attempted to improve environmental justice, but there are deep-rooted issues in the institutional bodies to achieve a better climate. On the other hand, with more information available and the introduction of ENGOs, the vision of the future is less gloomy and there seems to be a Chinese shift toward a healthier environment.

Chapter 5

A Chinese shift toward environmental improvement?

China has throughout the years invested a great deal in battling environmental challenges formally but putting policy into action remains. This chapter will look at different efforts undertaken to improve Chinese environmental challenges. In this chapter, I will address the second research question. The aim is to understand the roles ENGOs and environmental activists play in influencing the Chinese government to improve their work on environmental issues.

The first conference of the environment was held in Beijing in 1973. A decade later, in 1982, the first administrative governmental unit dealing with environmental issues was created. The Chinese constitution of 1978 included an obligation to protect the environment and the country's national resources by preventing pollution. The year after, the Law on Environmental Protection was implemented under a 10-year trial period. It was adopted following the trial period and includes specific legislation on different environmental challenges. In 2005, the State Environment Protection Agency developed a Green Accounting of the National Economy-policy, intended to encourage green, sustainable economic development (Balme, 2014). Such measures to protect the environment shows that there is interest among the Chinese government to actively and effectively handle environmental issues. Such interest is, for instance, shown through the "Report on the State of the Ecology and Environment in China". The report is released yearly and shows how such environmental issues have been improved on. The report from 2017 starts off by presenting several wonderful things that have been done for the environment. It highlights banning foreign waste from entering the country, the positive performance of environmental impact assessments, and reducing air pollution. However, when examined critically one sees that the environmental quality has not improved sufficiently. For instance, the report shows that out of 338 cities, only 99 of them met the national air quality standard. This means that as many as 70.7% of the monitored cities did not meet the standard (Ministry of Ecology and Environment, 2018 p. 8). This is the number when dust is excluded from the statistics. When including dust, it shows that 72.8% of Chinese cities did not meet the national air quality standards (Ministry of Ecology and Environment, 2018 p.10). These numbers show that there is still a long way to

go to achieve a healthy environment, despite some improvements. As the situation of the environment in China is still unsatisfactory, it may be a breach of people's right to health.

Pollution, environmental justice, and human rights

All people have the right to live in a healthy environment, with fair access to benefits from resources. Here, I will elaborate on these rights and what their standing is in China. The right to live in a healthy environment is stated in the UN Declaration of Human Rights. Article 25 in the Declaration states, "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family" (United Nations, 1945). Furthermore, all people have the "right to health" as written down in the International Covenant on Economic, Social and Cultural Rights which includes "healthy environmental conditions" (UNHCHR & WHO, 2008). The Chinese as a signatory have an obligation to ensure all citizens enjoy the "highest attainable standard of physical and mental health" (UNHCHR & WHO, 2008 p.9). To do so, the state government has a duty to improve environmental and industrial hygiene. In China, these rights are only partly being addressed.

To emphasise, I again want to point out that when looking at the environmental justice aspect of pollution, environmental degradation has been most harmful to rural communities. In China, the poorer and disadvantaged part of the population is the part most affected by environmental pollution. Many are migrants who went to factory-polluted locations for work and lack access to proper health care, school, or government services. These people almost always suffer from environmental harm emitted by the factories and pollution located near their homes. According to Shapiro (2016), the Chinese government regularly round up migrants living in such areas and destroy their homes, in an attempt to make them return to the place they came from. This makes them suffer double jeopardy. First, they are exposed to some of the worst levels of pollution in the world. Second, they lack both political and health security from government actions. Such actions by the government are a shining example of environmental injustice.

Lu & Gill (2007) comments on the poor standing of such environmental justice-related rights in China. According to the 2007 OECD Performance Review of China, air pollution is around 20% higher than the OECD average. Much of this pollution is present because China has struggled to fuel their continued economic goal, and have, therefore, relied on coal-burning which accounts for most of the energy production and air pollution in China. Such damaging production practices are likely to continue in the coming years. When the effects of

environmental degradation are as all-encompassing and damaging as the ones in China, it has an impact on people's human right to health and clean environment. Severe pollution undermines the human right to health as people are at increased risk to get serious diseases. The World Bank and China's Ministry of Environment cooperated in 2007 to find the costs of pollution in China. This collaboration showed that cancer is the main cause of death in China, with cancer rates high above the world's average. Nitrogen dioxideⁱⁱⁱ, one of the cancerogenous gases' levels in Beijing is the world's worst. Additionally, the data from the World Bank show that 750,000 people die an early death due to high levels of pollution (Lora-Wainwright, 2007). The data from 2013 show that air pollution in China has cut citizens life expectancy by as much as 5.5 years on average (Hook, 2013). For both environmental justice and human rights in China, this is bad news. Among citizens, the response to such issues is varied. Some show confidence in the findings linking illness to pollution, while others deny that there is any correlation (Lora-Wainwright, 2017). Thus, from the perspectives of the poor status of the environment in China today, the right to health and a safe environment is far from being a reality. There is, therefore, a need for the incorporation of environmental justice in the Chinese state's environmental policies.

Incorporating environmental justice in Chinese state environmental policies

Considering the poor state of both environmental justice and the environment in China, it is clear that there is a need to consider EJ in Chinese environmental policies. Environmental justice is intended to protect people's rights in relation to the environment. It is important to highlight yet again that access to environmental goods is one of the most important principles of environmental justice, but environmental challenges are not equally distributed across the different Chinese provinces. Wealthy Chinese regions often move the damaging environmental actions (such as heavily polluting factories) to poorer regions for practical reasons. This action is less costly and less "visible" to the Chinese public and international observers. As a result, communities that are already suffering due to economic hardship become more disadvantaged from pollution (Shapiro, 2016). The poor Chinese environmental governance causes such inequality. For EJ to be realised and the inequality-gap to be made smaller, strong environmental policies that are followed through on need to be in place.

Nonetheless, a framework for environmental law has been well-established in China. This already established framework allows communities to engage with environmental decision-making through consultations. Further, the public has the opportunity to challenge

environmental policy decisions, through such policy programs as the “Measures on Environmental Administrative Reconsideration” which has been established since 2008. These rights are intended to allow environmental governance agencies to consider opinions of the public and adjust their actions after hearing the public’s opinions. Unfortunately, such commitment is not sufficiently empowered by specific articles of Chinese law. The law lacks articles that state how to use the public’s opinions in decision-making, and an independent judicial system which deals with such complaints and suggestions (Xie, 2011a). This partly explains why governmental bodies should be considered ineffective when considering public opinions on environmental challenges and how they should respond to improve the situation.

A need for environmental justice in environmental policy

As I mentioned earlier, the vast amount of toxic air produced in China is much due to rapid industrialization, and heavy pollution in China is unevenly spread out. Some areas are much more affected than others, with rural areas seemingly suffering disproportionately from environmental challenges. Such injustices would not exist if environmental justice was present.

Victims of environmental injustice often find themselves ridiculed and their concerns belittled when attempting to speak up. They are often accused of not having enough knowledge to speak about the environmental quality of where they live by those with decision-making powers and other citizens. A reason for this is that when people live in heavily polluted areas for a long duration of time, many become accustomed to their living-situation and believe that toxic pollution is “normal”. Lora-Wainwright (2017) comments on such normalisation. She writes that this happens because people have lived under squalid environmental conditions for a long time and have, therefore, taken their poor environmental conditions for granted. Thus, pollution and its negative health-effects have become so incorporated in the local environment, it has become a part of people’s natural environment. The normalisation of environmental issues is dangerous, as people do not even consider that the conditions they live in could be dangerous to their health. It is a reason why many people simply accept living in health-endangering conditions. When such a situation arises, it can cause social conflict and undermine social stability. To avoid such situations, improve China’s environmental challenges, and ultimately achieve environmental justice, strong environmental policies need to be in place. Issues of poor policies and environmental injustices issues have led to the rise of villages with disproportionately high rates of cancer, namely “cancer villages”. Cancer

villages are in most instances located in rural areas, where people are poorer. Wealthy people who live in such areas either have the option to either move away or buy air purifiers and bottled water. Such inequality is likely to increase if the trend of moving heavily polluting factories to poorer, rural areas, as wealthier regions demand a healthier environment. To improve China's environmental challenges, and ultimately achieve environmental justice, strong environmental policies need to be in place and followed through on. This might be achieved by allowing a high degree of public participation in environmental policy-making.

Public participation in environmental policy-making

Negligence of environmental justice to pave way for development has been a driving force in making Chinese citizens voice their concerns for the environment. Such actions have made the Chinese government concerned about public influence. To ease relations with the public, the Chinese government imposed their own sort of détente, by allowing public participation. Public participation is today allowed in information sharing, collaborations, and public hearings. It is an opportunity for civil society to learn more about projects that impact the environment, and to express their support or concern for such projects (Walsh, 2015). This development should signify a change in China's political dynamics. I will comment on Moore & Warren's (2006) writings on this change. They write that public participation should allow all voices to be heard, increase public knowledge, and ensure stronger civil participation in environmental regulations. Unfortunately, the use of public participation in policy-making has only been partially successful. The process begins with the complaints of the public reaching The National People's Congress in China (NPC). Congress serves as an institutional arrangement for public participation. The Congress then, together with the Chinese People's Political Consultative Conference (CPPCC), listen to and adjust their actions after considering information gathered from public participation. Important laws in the realm of environmental public participation in China is the Environmental Impact Assessment Law of 2003, and the Administrative License Law enacted in 2004. Both these laws demand public participation in some circumstances and include mandatory disclosure obligations. Public participation is, for instance, required in some of the instances noted by Moore & Warren (2006, p.5) including:

- Construction projects where there is a likelihood of "major environmental impact".
- Some "special plans" that can cause negative environmental impacts and interfere with environmental rights and interest of the public.
- When interested parties ask for a hearing in cases of great impact on their interests.

However, discretion is often left to local decision-makers to choose the method of participation. The exceptions are often used to protect “state-secrecy”. Such actions cause non-representative public participation, wherein not all interested citizens are allowed to voice their opinions, but rather a “selected few”. Also, the effectiveness of the implementation of public-participation law is weakened by confusing and overlapping jurisdiction in combination with poor civil enforcement. Furthermore, In EIA’s categorisation there is no definition of who the “public” is. A common practice for the environmental protection bureau is to get the opinion of those with expert knowledge, such as university professors, rather than opinions of the general public (Walsh, 2015). Ordinary citizens in China are in most cases mistrusted by those in positions of power. Mistrust of civil society makes consideration for opinions voiced through public participation in environmental decision-making difficult. Poor trust in the public participation-process diminishes both environmental justice and the quality of environmental policy, as the process does not represent participation by the public. In an interview with government decision-makers and private sector organisations from 2012, many expressed the opinion that comments from the public were of “questionable value” (Walsh, 2015). A contributing factor to such distrust is the deeply rooted cultural beliefs that value production over environmental protection. Within these beliefs lay one of the most significant challenges for environmental protection and value to be put on the opinions of ordinary citizens. In addition, China’s political system has little power at the top and at the bottom, most of the power lies in the middle, with hard-to-control local officials, which indeed makes environmental challenges more difficult to overcome (Shapiro, 2016).

The legal framework surrounding public participation is in its developing stages, but it is still too weak to have a significant influence on environmental justice. Different levels of authorities have shown varying levels of acceptance for public participation. When public participation was first introduced, some believed that it would cause confusion and chaos (Moore & Warren, 2006). It appears such beliefs are still present today. Introducing environmental justice-friendly policies in China will require more weight being put on public participation. The tension between civil society and the Chinese decision-makers that public participation will lead to social disorder is reflected in the legal public participation requirements. There is a need to make such policies less strict and more inclusive, to obtain a higher level of environmental justice. Making public participation more inclusive can, for instance, be done by giving lawyers, and ENGOs a larger role. Expanding facilitation and confrontation that such stakeholders can bring is likely to strengthen China’s environmental

governance system (Moore & Warren, 2006).

In the next sub-section, I will examine the potential challenges to environmental policy necessary for promoting environmental justice.

Environmental policy, environmental justice, and policy challenges

The image of China in the global fraternity is, as mentioned earlier, that of the world's worst polluter, risking the health of its population. Yet, critical assessments of evidence do not support such views. In the following discussion, I will elaborate on some environmental policies which are already in place and why they may be difficult to enforce.

Environmental law and policy in China first occurred in 1978, when the Environmental Protection Law of the People's Republic of China developed responsibilities for the prevention of pollution (Standing Committee of People's Congress, 1978). Policy occurred shortly after Mao's death, a time when most Chinese spent their money on unnecessary items such as cigarettes, watches, and (perhaps more useful) bribing of government officials. A similar system of corruption and easy-amendable decision-makers is still seen today and remains one of the biggest reasons why implementing environmental policy is difficult (Shapiro, 2016). The Chinese government has several state environmental policies in place, in addition to a Ministry of Environmental Protection. When the Premier of the State Council in China, Li Keqiang declared "War against Pollution" in 2014 (Keqiang, 2014 p.30), it became clear that China is interested in bettering their environmental challenges. The interest in the actual implementation of environmental policies and their efficiency, however, remains unclear.

In 2018, a new version of the Environmental Protection Law went into effect, under the name "The Environmental Protection Tax Law of China". This new law intended to formalize an already-in-place pollution fee, into one collected from industrial polluters. This tax law is among one of the most ambitious environmental laws in China, which is good news for environmental justice. The law taxes industrial polluters for their actions. Companies are both penalized and given tax breaks, depending on their performances. They receive a tax break when their contribution is less than 30% of the national average emissions (Committee of the National People's Congress, 2016). However, the wording in the tax-law is on the point of interagency unclear, which provides space for exemptions to avoid the tax penalty (Wu & Tal, 2017). Further, the local governments still play a large role in deciding how the law should be implemented. Such governments, which I mentioned earlier, usually prioritize economic

development over environmental and public health safety (Jiaqi, 2018). However, under a new tax law, the central government is willing to hold polluters responsible for their levels of pollution. But, there is a great deal of uncertainty as to what degree it will be followed through on.

The type of uncertainty seen in the tax law can also be seen in the current five-year plan. China has throughout the years had multiple five-year plans which are intended to help guide policy. Some of the sections in these plans include environmental goals. The current five-year plan is for the years 2016-2020 and includes a chapter on “Ecosystems and the Environment”. The efforts for environmental improvement mentioned in this chapter are intended to “improve the quality of the environment and resolve serious ecological and environmental problems” (CCCPC, 2015 p.119). Such efforts will, according to the plan, be done by stepping up the protection of the environment and ecosystems by allowing more ecological goods to be available to the public (CCCPC, 2015). The plan nonetheless does not sufficiently mention how these specific goals would be achieved.

An important political step for environmental improvement in China was the ratification of the Paris Agreement in 2016. When China signed the agreement, they made a huge international commitment to improving environmental challenges. If they fail to live up to their commitments, the Chinese state government is likely to lose one of the things most important to them: A good reputation in the international community. Following the goals set in the Paris Agreement is likely to help China become recognized as a positive influence on the world’s climate. In addition, it will result in a major improvement for the environment in China and its neighbouring countries, and the likelihood of improved environmental justice within China.

Another environmental policy worth mentioning is the Air Pollution Prevention and Control Action Plan issued in 2013. This is the strictest policy on air pollution in China, so far. Its ultimate goal was to drastically improve air quality and attempted to do so through targets for improvement and emission control into government performance (Wang et al., 2018). The action plan has widely been used for the reduction of air pollution. The new and updated plan for the years 2018-2020, has more moderate targets than the 2013-plan. For example, the target for fine particulate matter (PM_{2.5}^{iv})-reduction is 18%. If this target is achieved, it will leave more than 200 cities out of the national standard-range (Hao, 2018). Regardless, the action plan has a wider application than its predecessor. Thus, it will likely be an important, positive influence on how industrial polluters think about and act against air-pollution.

It is clear that most of the challenges for implementing strong environmental policies lie within the governmental structures. For instance, The Ministry of Environmental Protection does not have much enforcement power, making it a source of ineffectiveness over institutions such as Environmental Protection Bureaus (EPBs) and provincial governments. Local leaders are still in charge of, for instance, EPB's budgets and decisions to close polluting plants. They have the decision-making power to implement goals for environmental protection set by the central government, but this means they also have the power to not implement such goals (Shapiro, 2016).

This is one of the main reasons for environmental activism. Environmental organisations have frequently attempted to change local decision-makers mind about how they conduct their business by taking a more environmentally friendly approach. I will discuss environmental activism in chapter 6.

Chapter 6

Environmental activism in China – Efforts and Effects

With the internet and a legal framework allowing citizens to engage in policy-making, people have become more aware of their rights regarding environmental degradation taking place. Citizens have shown great interest in articulating their disagreement with how the Chinese government handles environmental issues, and the number of Environmental Administrative Reconsideration-cases have increased significantly (Xie, 2011b). Nonetheless, environmental justice in China is still poor for several reasons. One of the most significant aspects is the lack of recognition of environmental rights. Despite such rights being implemented in a legal framework, there is insufficient access for private individuals to express dissatisfaction with environmental processes and policies. Silencing of environmental activists without making litigation has made many people dissatisfied (Balme, 2014). And so, several environmental organisations and independent activists have expressed their dissatisfaction. I will, however, suggest that attempts to improve environmental governance through activism exist. This chapter will examine the third research question, which looks at the connection between environmental activism, environmental justice, and environmental policies in China.

Attempts to improve environmental governance

In 2012, civil public interest litigation finally became legal in China (Lin & Hu, 2015). Here, I have briefly outlined the challenges of public interest litigation and how they were overcome.

Through the legalization of civil public interest litigation and the increased access to information environmental non-governmental organisations were prompted to increase their participation. The legalisation has, however, made environmental organisations more confrontational toward the Chinese government (Lora-Wainwright, 2017). The increasing Chinese environmental activism seen throughout the country has likely been due to the lack of governmental efficiency in confronting the issues that affected them. Among Chinese government-employees, some are in favour of stronger policies to protect the environment, but they also face tremendous challenges. The implementation of environmental policies works well when there is only one sector to consider, but when the interests are across different sectors conflicts usually arise (Xie, 2011a). Due to governance structural problems, the legitimacy of environmental policies of the Chinese state is often challenged, especially at

the local state levels. Given their powerful political authority, the local authorities have become entrepreneurial states, which aim to maximize their profit. This often happens at the cost of environmental justice. For instance, if a factory employing many people is emitting dangerous levels of pollution, a local decision-maker is more likely to keep the factory running rather than shutting it down or making changes. This happens so that people can keep their jobs (Economy, 2010). But how has environmental activism had an impact on this?

Effects of environmental activism on Chinese environmental policies

The recent increase in citizen participation using the courts might indicate an increasing trend wherein people trust that they have a right to a healthy environment. The use of the legal system to solve environmental disputes is not new, but it has become more socially acceptable. Local authorities, however, often represent the government that owns polluting companies and factories (Thompson & Lu, 2006). Still, there has been a positive development for both environmental justice and environmental activism. China now has more than 300 environmental courts, panels, tribunals, and circuit courts, which is a huge victory for the environment. Unfortunately, only a limited number of cases are brought to trial (Shapiro, 2016). Some would argue that ENGOs have little to do with shaping environmental policy processes and that the state is the most important actor. However, ENGOs have shown to have significant influence, albeit indirectly, in environmental governance. This would explain the increased number of cases been taken to environmental court.

ENGOs have the opportunity to influence civil society through campaigns gaining the public's interest, controlling the release of information, and putting pressure on decision-making processes. Chinese ENGOs have been particularly active in air-pollution cases. The first thing that comes to mind when thinking of air pollution, is smog. A thick, grey layer of health-damaging air above a city. In China's case, such an image is accurate. On a particularly smog-filled day, the polluted air can make 50-story buildings from 90 meters invisible (Economy, 2010). Consequently, ENGOs have expressed interest in the development and implementation of more efficient policies to improve air quality. In particular, their interest has been preoccupied with holding the state more accountable. The increased citizen-interest in environmental challenges and the number of ENGOs have made some authorities believe that such organisations may challenge political authority (Economy, 2010). This has led many decision-makers to feel sceptical toward ENGO's attempts to make a healthier environment. In the next sub-section, I will look at some attempts to improve environmental quality.

Attempts to improve environmental quality: Successes and failures

In recent years it has become apparent that environmental organisations are significantly important in creating a positive environmental impact, by advocating for more effective enforcement of policies and spreading information (Thompson & Lu, 2006). The growing influence of activism has mostly been met with approval from international organisations. But in China, it is still difficult to operate as an ENGO, and even harder when you are not affiliated with government organisations. Despite difficulties, several people have, with varying levels of success, attempted to improve environmental policy, air quality, and environmental justice. I will give some examples of such efforts.

Most of the attempts by civilians to improve the environmental challenges in China have been done through environmental activism. An interesting case in point is one that dealt with waste incinerators. Shapiro (2016) comments on this case. She wrote that China has limited space to deal with garbage, and in 2009 a plan was set in motion to increase the burning of waste in Beijing by building more incinerators. This led to a reaction by environmental activists. The plans for the incinerator were met with protest from all over China, with people arguing that the incinerator-plans would produce high levels of dangerous toxic chemicals. Even the Ministry of Environmental Protection expressed the opinion that they would prefer improved recycling to more incinerators. Citizens then escalated their demonstrations into a lawsuit. The lawsuit ended with the Chinese government not proceeding with their plans for the building of more incinerators, and imprisonment of local officials connected to the landfill, with claims of corruption. Such an outcome signals good news for environmental justice, with the judicial system working in favour of civil society. However, there is still plans to build a new incinerator to increase garbage burning. What changed, is the location of the incinerator. The incinerator is to be placed on the border of the city, where the Chinese decision-makers claim fewer people will be affected by air pollution. What the decision-makers failed to address is that the new area for the incinerator is mainly populated by farmers with little clout to stand up for their environmental rights when the incinerator ultimately does damage to their land, comments Shapiro (2016). Journalists played an important role in this case, to bring attention to the issues.

Many environmental activists in China started off as journalists. Journalists are in many cases the first people to explore and uncover environmental injustices. With the help of investigative journalism and the media spreading their stories, even those living in rural areas with little or no internet-access have the chance to have their stories heard. Documentaries

have become important tools of communication for Chinese journalists, such as the popular “Under the Dome”. The documentary was made in 2015 by a former reporter from China Central Television named Chai Jing. The documentary revealed her investigation into China’s air pollution issues. Prior to its release, the film was approved by the Ministry of Environmental Protection. The film was released on public websites for free viewing and got over 200 million views online during the first week of its release. It revealed much of China’s air pollution issues and was able to inform many people of the issues, even outside Chinese borders. The movie stands out as one of the most effective activist actions and powerful wake-up calls for air pollution in China. Sadly, a week after its release it was banned from Chinese websites by the Chinese propaganda department (Larson, 2015). The outcomes of such policy reversals show weakness in Chinese transparency policies. Reliable information-sources on air pollution is seldom easy to find for ordinary citizens in China, due to such weak policies. The Chinese ENGO Institute of Public and Environmental Affairs (IPE) is one of the most prominent organisations fighting for more transparent environmental policies. The organisation has attempted to hold the Chinese government accountable for a hardly-implemented 2008 regulation which makes authorities obligated to expose pollution sources. To do so, IPE created a China-wide pollution map in which official pollution records are organised. The map is a highly effective way to reveal information on pollution violations to both companies and civil society. Further, the organisation developed a Pollution Information Transparency Index, which assesses the environmental transparency of 113 cities in China. The index rates cities on how good the local environmental protection bureaus inform the public of pollution data (Shapiro, 2016). Those who are in favour of transparency politics believe that through informing the public of pollution levels and drivers, the issues can be properly addressed. Despite improvements over the years, Chinese transparency is still not good enough. It has, however, made consumers think about what they can do to limit their environmental damage, and many well-organised people are working hard to make it better. Knowledge of environmental rights and how to use the court system to their benefit has in recent years gotten much better in China. However, strict boundaries remain for those who dare step over the line, as they may be severely punished. In the industrial provinces Hebei and Henan, there are disproportionately high cancer-rates. Such high rates of cancer have gained the attention of environmental organisations but improving environmental justice there has proven to be difficult. Below, I will look closely at Hebei and Henan, the environmental situation there, and what is being done to improve it

Chapter 7

Case Studies – Cancer villages in the provinces of Henan and Hebei

“If you run around complaining to the government about pollution, they will say you have [mental] problems... so people don’t go. The only way [to avoid pollution] is to move out.” (Former Chinese teacher and owner of a local factory, 2009. Quoted in Lora-Wainwright, 2009)

This quote accurately describes why people are still living in highly polluted places despite very little being done about it. Ridicule and mockery of those who dare speak up about their lives being lived in toxic environments is a common occurrence. The provinces of Hebei and Henan are two of the most polluted provinces in China. Here, many people live under poor environmental circumstances. On a usual day, air pollution in Hebei and Henan is damaging to the health of those who live there. Several villages in these provinces are experiencing pollution so heavy that some villages there are being referred to as “Cancer Villages”, named after the intense cancer-clusters in those two provinces. Cancer villages’ existence was not officially acknowledged by the Chinese Government until 2013.

Today the link between high levels of pollution and cancer rates has been acknowledged and researched by the Chinese Government (Shagun, 2016). Cancer is one of the most dangerous effects of environmental injustice. Which is why pollution-related disproportionateness as seen in Hebei and Henan harms environmental justice. I will discuss the cases of cancer villages in Hebei and Henan in turn in the following sections.

Hebei

Hebei is China’s largest steel producer. It is also the place where six of the ten Chinese cities with the most air pollution are located (Stanway, 2018). It is also the location of the second highest number of unofficially reported cancer counties (Shagun, 2016).

Pollution, environmental policy, and EJ in Hebei

Hebei has been referred to as “ground zero” for China’s pollution, and the province is blamed for much of the air pollution present in its neighbouring city, Beijing (Duggan, 2015).

Particulate matter, sulphur dioxide, and nitrogen oxide^v are among the most dangerous pollutants poisoning the Hebei-air. Hebei is particularly vulnerable to air pollution due to its location, as it is surrounded by three heavily industrialized and polluting provinces (Wang et al., 2013). One of them is Henan, which I will get back to later in this chapter.

Most cities in Hebei struggle with extraordinary levels of heavy pollution, such as iron, electricity, cement, and glass, which are responsible for 53% of the coal use (Coonan, 2014). In 2018, Hebei produced about 237 million tonnes of steel, which is more than 25% of the total in all of China (Xu & Daly, 2019). There is a desperate need to quickly improve the environmental quality in Hebei. People need to have a safe climate to live in, as this will ultimately improve environmental justice. As China is a country with a government that normally prefers economic growth rather than environmental conservation, this is not an issue that will be easily dealt with.

The local government in Hebei has clearly not dealt with pollution effectively (Liang, 2014), as Hebei is a province with several cancer villages. The Hebei-city of Xingtai was in 2018 declared the most polluted city in China, based on the PM2.5-concentration (Kiprop, 2018). There have been reports of the air-quality index in Hebei reaching more than 500, which is off the air-quality index's charts (Coonan, 2014). The highest number on the chart is 300+ which is classified as "hazardous" and states that everyone should avoid going outside while such a large concentration of PM2.5 is present (Air Quality Index, 2019). The image below shows the air-quality in Hebei's capital city Shijiazhuang on a randomly chosen date (11.02.2019). It is an Air Quality Index Scale based on the US-Environmental Protection Agency standard scale of 2016. The map and numbers show that the environment there is at a level where people may experience negative health effects, and people should avoid being outdoors for extended periods of time. The score is close to being "very unhealthy", which would require a score of 201. The "good" range needs to be below 51 (Air Quality Index, 2019).

Figure 1. Air Quality in Shijiazhuang, Hebei

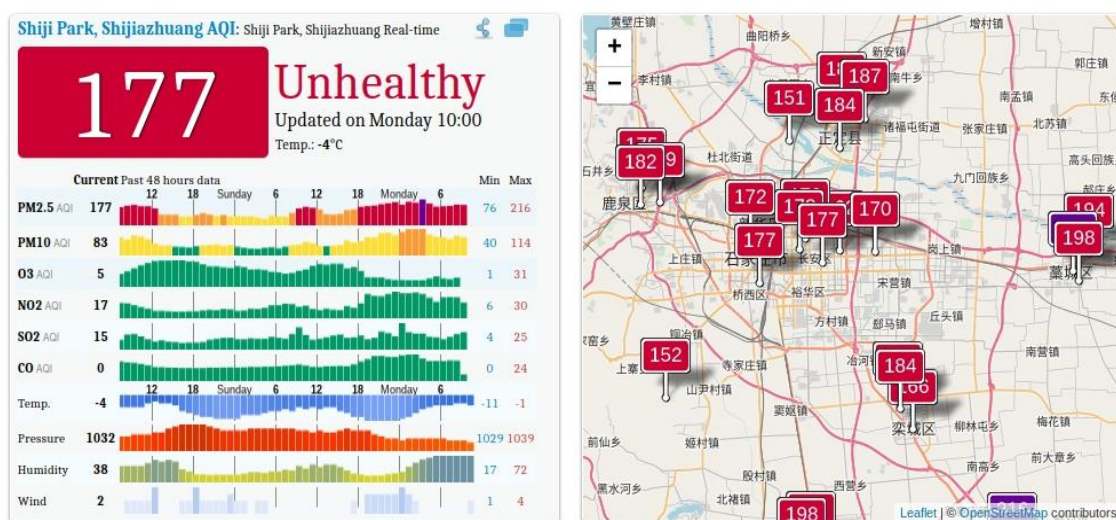


Image from: <http://aqicn.org/city/hebei/shijiazhuangshi/shijigongyuan/>

The local Hebei government struggles to improve this unhealthy air-quality. In 2014, the Hebei-city of Handan shut down 1000 factory chimneys, and 700 coal-burning furnaces after being pressured by the state government (Liang, 2014). Despite such efforts, there is still significant health-implications related to residing in Hebei. According to WHO, a “healthy” amount of PM2.5 is as low as 25 micrograms per cubic metre for a 24-hour mean (WHO, 2018). This is far below Hebei’s current levels. A Greenpeace investigation from 2013 revealed that if stronger efforts are not made to reduce PM2.5, the National Air Quality Standard-level of 35 micrograms per cubic metre (which still is 10 micrograms per cubic metre above WHO’s recommendations), will not be reached until 2030 (Dabo & Zhu, 2013). For these reasons, there is a need for even stronger environmental policies to be in place in Hebei, to ensure a healthier climate and environmental justice.

In the next sub-section, I will discuss what has been done to create a healthier environment in Hebei.

What is being done to improve environmental challenges in Hebei?

The environmental challenges seen in Hebei may seem overwhelming. Fortunately, several people have gotten involved to improve the environmental situation.

In the years 2008-2017, almost 11,000 complaints by citizens were submitted to the Hebei government, many of them spoke of heavy nightly pollution being done when pollution inspectors are not keeping watch. Many complaints also noted that local environmental authorities did very little to tackle the issues (Thomas & Stanway, 2017). Such efforts speak of a low level of care being given to environmental challenges by the local governments. Nevertheless, some of the worst polluting cities in Hebei have been subjected to strict pollution controls. This has led to moderate improvements in air quality. The air quality in Hebei improved during the warmer months but unfortunately reached up to 91 micrograms during winter, 11 percent less than the year before. In January 2019, the PM2.5 concentration in the Beijing-Tianjin-Hebei region increased by 16% (Qiuyu, 2019). But, Hebei’s average concentration of PM2.5 for all of 2018 was 56 micrograms, a reduction of 13 micrograms from 2017. However, the concentration is still above the national reading of 39 micrograms (Xu & Daly, 2019). Thus, the Hebei-air is still very unhealthy despite improvements, particularly during winter. Air pollution control in Hebei was introduced quite suddenly, and it is possible that the regional market was simply not ready to adjust (Wang et al., 2018). The Chinese governmental decision-makers seem determined to take steps to improve air-quality

in Hebei, through the implementation of air-pollution control. However, continuous extreme production and strive for further economic development is a big challenge to overcome. The local Hebei-government seems, in many cases, unwilling to enforce air-pollution control regulations.

On a brighter note, recently, Hebei delegates who spoke at the National People's Congress said that they are going to reduce the PM2.5 concentration by five percent in 2019, compared to the levels seen in 2018. To do so, the plan is to cut steel capacity by about 14 million tonnes of steelmaking in the years 2019-2020 (Xu & Daly, 2019). A level 1-alert, which is the highest in China's pollution-warning system, has been enacted since March this year, and puts pressure on steel mills to stop their outputs by 40-70 percent, and some to even stop production, depending on the level of pollution emitted from the factory in question (Cruz, 2019). Such improvements signal a solid effort made by the local Hebei-governments to improve environmental challenges. An example of such pro-environmental efforts was shown in the anti-incinerator case in Panguanying.

The case of the Panguanying incinerator

The Panguanying incinerator-case is a significant case when environmental activism and EJ is to be considered. The proposed incinerator-project was opposed by the residents of Hebei, and it received large levels of opposition through lawsuits, petitions, and participation in elections. The facility incinerating waste was to be located 200 metres from people's homes. There was no public participation allowed in the decision-making process, nor were the residents given basic information about the project. The only availability for comments from the public was advertised through small notices in the country government (Johnson, Lora-Wainwright & Lu, 2018). Local governmental departments approved the project in 2009. The only village representative was one who had been previously accused of being influenced through corruption. The incinerator-plans soon gained widespread attention and opposition in Hebei. Many people signed a petition opposing the incinerator when they learned of the negative health effects the incinerator was likely to cause. Activists then produced their own reports proving such health-effects and documenting that the decision to allow the incinerator was against several laws and regulations (Johnson et al., 2018). The residents formed a strong alliance against the people who wanted the incinerator, which caused local officials to feel uneasy. Prominent activists were threatened and had their windows smashed. Some local officials even tried to pressure them through bribery into quitting the campaign, but none of

the activists gave in to the pressure. In the end, the project was halted. However, there are still many unresolved issues and the project may continue in the future.

The case shows that ENGO action and participation by the public is important to the outcome of environmental cases, in addition to strengthening environmental justice. The use of public participation to increase environmental justice lacks support from high-level governmental positions (Johnson et al., 2018). But despite such challenges to environmental justice, the outcome and close networking that was between the residents in the Panguanying-case gives hope for a better climate and improved EJ in China.

Another Chinese province that struggles with heavy pollution and limited EJ is Henan.

Henan

Henan is a large industrial province which relies on heavy coal-burning. Industry and factories are the most significant source of pollution, and both water and air are severely polluted. In recent years, economic development has significantly increased, and so has damages to the environment.

Pollution, environmental policies, and EJ in Henan

The effects of pollution within Henan can especially be seen through the high occurrence of cancer villages. The cause of such pollution is much due to the poor implementation of environmental policies by the local government.

The high number of cancer victims is a long-standing fear in Hebei. This fear is realised, for instance, in the county of Shenqui, which has the highest occurrence of cancer villages in all of China. Further effects of pollution and poor environmental policy can be seen in the small Henan-village Huangmengying, where about 80 percent of young people are always sick. In this village, 114 of 2400 residents died of cancer between 1990 and 2004 (Van Heuvelen, 2007). Another example is Huangmengying. Here, and throughout many other parts of Henan, some of the heavily polluted Huai River can be found. Both local and state government has tried to deal with the toxic pollution found in the river, much due to the pressure created by environmental organisations, but also due to the severity of the situation. In 2013, researchers working at the China Center for Disease Control and Prevention analysed the connection between polluted water and cancer-incidences, going back 30 years. The findings concluded that the most polluted areas also had the highest rates of digestive cancer (Jingyang & Nan, 2013). What the study lacks, is evidence that links specific types of pollutants to effects on health or industry. When such evidence is not present, it limits environmental organisations

and citizens chance of getting compensation, and the chance of implementing policies to improve the environment (Lora-Wainwright, 2017). This ultimately limits environmental justice.

In addition to pollution in the river, the air is also heavily polluted. The province has been under much pressure from the central government to minimize pollution, in line with the principles of “War against Pollution”. Unfortunately, this has proven difficult. At the end of 2018, the overall concentration of the health-damaging PM2.5 in the province successfully fell two micrograms below the target of 63 micrograms. The PM2.5 is, however, still way higher than the national standard of 35 micrograms (South China Morning Post, 2019a). Unfortunately, PM2.5 increased in nine cities, reaching numbers close to 100 micrograms in November and December, which is more than double from the year before. The pollution-increase has been blamed on bad weather such as high humidity, and people struggling to find more environmentally-friendly ways to experience economic growth (South China Morning Post, 2019b). Yet, unwillingness by both local authorities and factory-owners to significantly reduce their outputs is likely the most important contributing factor.

The map below is an Air Quality Index Scale image showing the air quality in the capital city of Zhengzhou, on a randomly chosen day (11.02.2019). Zhengzhou is the Henan-city with the worst air-quality (Shen et al., 2017).

Figure 2. Air quality in Zhengzhou, Henan

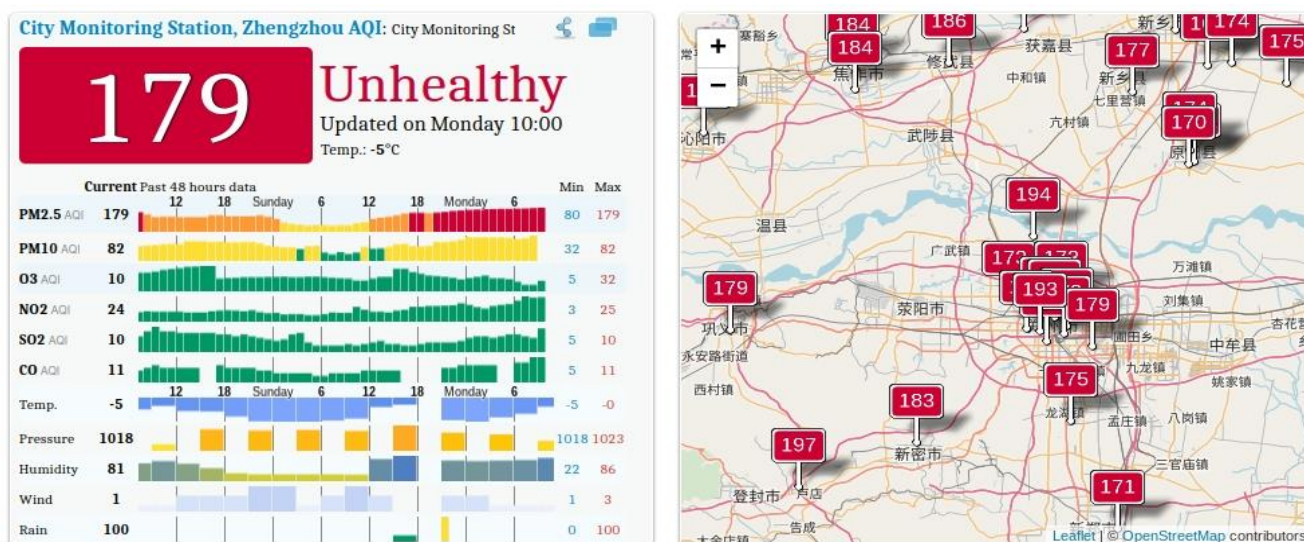


Image from: <http://aqicn.org/city/china/zhengzhou/shijiancezan/>

Like in Hebei, the air quality is unhealthy, and it is recommended to not be outside for prolonged periods of time, as the air may be very damaging to people's health. The PM2.5-concentration gets worse during the winter, as people use coal to heat their homes, and the ozone pollution worsens during the summer (Shen et al., 2017) A survey of the local population in three Henan-cities showed that people have quite a low opinion environmental performance, with the overall approval ranking from 4.38-5.42 out of 10 (Guo et al., 2018), which seems to be consistent with the poor air-quality ranking.

As shown, environmental justice is still not good enough in Henan, but the pressure being put on the local authorities by ENGOs and the state government to reduce pollution is likely to help, and efforts to improve environmental challenges have been made.

What is being done to improve on the environmental challenges in Henan?

Improving environmental challenges in Henan is difficult. The province is attempting to have continued economic growth while trying to protect the environment. This has increased the likelihood of the Chinese government loosening up on the restrictions put on pollution in Henan. For that reason, it is crucial that something is being done quickly to improve Henan's environmental challenges.

ENGOs have tried to help the resident's situation. The ENGO Greenpeace has, together with local activists, provided free, clean drinking water to many of those affected by pollution in Henan. The journalist-turned-activist Huo Dishan has raised funds to provide water purifiers to those living in heavily polluted Henan-villages since 2004, in addition to encouraging media-stations to talk about the issues in Henan (Shagun, 2016). Another case that illustrates activism for bettering the environment in Henan occurred in 2017 when the NGO Chongqing Liangjiang Voluntary Service Centre published images showing severe pollution in a Hebei-village on their social media accounts. The images caused public outrage and demanded action to be taken quickly by the Chinese government. Fortunately for Hebei-residents, the local authorities quickly responded to the images by launching an investigation and cleaning up the polluted areas (Beijing Bureau for BBC News, 2017).

On the local decision-making level, there has been an improvement in the willingness to commit to environmental policies. To improve on the poor air-quality in Henan, 79 cities have developed anti-pollution plans to control smog during the winter, and many have committed to limiting their PM2.5 emissions by three percent from 2017. Cities committing to policies to improve the environment is good for environmental justice. The increasing environmental justice can already be seen the anti-pollution committed cities, where the levels of PM2.5 fell

to 66 micrograms per cubic meter, a reduction of 18 percent (Stanway, 2019). Although it is an impressive reduction, the level of pollution is still more than double than the WHO-recommended healthy PM2.5 concentration.

The future of environmental improvement and EJ in Henan is unclear. Several cities have committed to limiting their PM2.5 outputs, but most struggle to do so, particularly during the winter months. In Henan as in most rural areas in China, it is difficult to get the local decision-making powers to commit to environmental sustainability, rather than further increasing their economic growth using non-renewable resources. The pollution of the Huai River is a case in point.

Pollution of the Huai River

The Huai River basin is a large, highly polluted river that consists of several rivers, fishing villages, and lakes. Parts of it flows through Henan. The river basin has through many years served as a sort of “national symbol” (Hua, 2009). Such an image of the river is unfortunately no longer accurate. The former national symbol has been reduced to a highly toxic, dirty river, severely polluted by industrial plants. Millions of tonnes of sewage and waste have been almost constantly pouring into the river for years, making it the way it is today. Public participation has been much used to improve the quality (Hua, 2009) of the river, and for it to regain its status as a national symbol.

During the years 1990-2004, 105 people died of cancer in the Henan-village Huangmengying, which is located next to the largest bank of the river. The ENGO “Huai River Guardians” was founded in 2000, and focused on, as the name implies, protecting and improving the quality of the river. The founder of the organisation, Huo Daishan, started an investigation into the high rate of cancer-villages in the river area the year prior to the founding of the Huai River Guardians. He took over 15,000 photographs of the polluted river throughout Henan (Environmental Justice Atlas, 2018). Huo held 70 exhibitions showing the images to raise awareness for the environmental challenges posed by the Huai River basin. He also engaged in research and documented illegal environmental activities of factory owners and local officials. Through the campaign, he also gained many people’s interest in his organisation. Through his efforts, China Central Television decided to undertake an investigation of their own into the polluted river, followed by more media coverage on the cancer villages of the Huai River. The efforts by Huo and the investigative journalism carried out by CCTV, led to much attention being paid to the Huai River and its pollution. The local government has with the help of those efforts implemented anti-pollution plans to improve the water quality and to

ensure healthy water supply. In Huangmengying, the local government built a deep well to provide clean drinking water to the residents (Environmental Justice Atlas, 2018). The government Chief in Huangmengying even gave Huo 95 percent of the credit for bringing attention to the Huai river-problems and said that without him, Huangmengying would not have clean drinking water (Hua, 2009). Lotus group, one of the main polluters of the Huai River, used to pollute the river with 12,000 tons of raw effluent every day. The company was in 2003 fined by the State Environmental Protection Administration and ordered to reduce their pollution. The restrictions put on the company had a positive outcome for the pollution in the river and its nearby residents. Lotus group cleaned up their company, dismissed executives in charge of pollution, and started working with both environmental officials and the Huai River Defenders. Now, the company's waste-treatment are better than the Chinese national standard for environmental protection, writes Hua (2009). Such actions by a high pollution company show that environmental activism can have a positive impact on the environment. Unfortunately, in recent years it has become more difficult for activists to operate in Henan. Most officials are against environmental activism and will shame and blame activists for things they have not done. In addition, the Chinese authorities have deleted the Huai River Defenders website for publishing an article criticizing the official environmental record of local officials (Hua, 2009). Thus, there is likely a long way to go before the Huai river is back to be a beautiful national symbol.

Despite some environmental improvement and plenty of efforts made by environmental activists and organisations, the problems responsible for the pollution are not over.

As shown, both Hebei and Henan suffer from high levels of pollution. These common challenges will be discussed in the next sub-section.

Common challenges in Hebei and Henan

Negative health implications due to pollution are especially prevalent in rural, industrial areas such as Hebei and Henan, and most CO₂ emissions in China are from such industrial provinces (Wei, Wu, Liu & Zou, 2011). Both Hebei and Henan have experienced increased water and air pollution levels in recent years. The increased levels are related to changes in energy consumption and the desire for economic growth. As most residents in the two provinces are poor, rural residents, many do not have health insurance. Due to the lack of health insurance, the citizens are less likely to see doctors with enough knowledge to identify and treat pollution-induced illnesses. Illnesses that used to be rare for people living in Hebei and Henan have become common occurrences. Doctors often tell their concerned patients that

illness is due to pollution and that they will eventually get used to it (Lora- Wainwright, 2017). Such normalisation of pollution-related diseases is prevalent in both Hebei and Henan. Both provinces have cancer rates much higher than the national cancer rate. Both are, for that reason, frequently referred to as cancer villages. The local governments have shown limited interest in the politics and social problems of cancer, which is why governmental actions to improve air pollution has had very limited effect on the cancer villages (Shagun, 2016). Governmental officials are often sceptical of the cancer-village phenomena. For example, a person working at a country environmental protection bureau in Henan completely disregarded reports of cancer villages and called the reports “media hype”. This happened despite the official recognition of cancer villages in 2013. Both provinces have faced limitations being put on environmental activists, and several residents have received threats from authorities when trying to do something about the issues (Shagun, 2016). Despite the limitations of environmental activism, it has had some positive influence on the environment. ENGOs, in particular, have been able to put pressure on the local governments and heavily polluting industrial factories to reduce their pollution outputs.

The table below describes and compares some environmental aspects in Hebei and Henan. It shows that there are many similarities when both pollution and ENGO-activities are to be considered.

Table 1. A comparison of pollution and environmental justice-aspects in Hebei and Henan

	Hebei	Henan
Main cause of pollution	Steel production	Coal and metal production
Pollution type	Water and air	Water and air
Pollution level	Unhealthy	Unhealthy
Dependence on industry	High dependence for jobs and economic development	High dependence for jobs and economic development
ENGO presence	Present	Present, but limited by authorities
Local perception of the level of environmental justice	Poor	Poor
State-level demands	The state has developed plans to reduce pollution on Hebei, increased targets present in recent years	Henan is required to cut pollution by the Chinese state.
Media coverage	Many news articles produced	Covered, recently exposed water pollution. Easy to find news articles on pollution issues.
Impact of environmental activism	Positive, helped bring cases to court	Positive, helped highlight pollution-cases, provided clean drinking water

Source: Self-made with information based on findings mentioned in the chapter

No one knows what is going to happen to Hebei and Henan's environmental quality in the future. It is unlikely that either will have a quick recovery from the environmental challenges, even if all pollution was stopped immediately. The environmental problems are so extreme that recovery is likely to take a long time. Even if there was a way to easily fix Hebei and Henan's environmental problems, there are no sufficient plans for a long-term recovery in place. Much of the problems lie with the local decision-makers who often are uninterested in fully adopting environmental policies proposed by the Chinese state and thereby limiting ENGOs activities. Such an approach to environmental challenges is not helpful to anyone, as everyone suffers from environmental degradation. However, if environmental organizations are given room for more participation, and citizens are allowed to participate fully in decision-making processes, environmental issues are likely to be alleviated to some degree. Environmental activism does have a positive effect on environmental challenges. It can also lead to stronger environmental justice in instances where ENGOs can do as much as they can to help, and environmental policies are strictly followed.

Chapter 8

Discussion and conclusion

Discussion

Environmental challenges faced by China are complex and multi-dimensional. Corruption and unwillingness to implement environmental policies are the number one issues to address in China when considering environmental issues. These are also the most challenging problems to improve on. For that reason, civil society-activism is only likely to obtain a larger and more important role, as people become more aware of their rights in relation to the environment. The educated middle-class' interest in environmental justice is visible through the increased intensity of demonstrations, ENGOs, and organised environmental activism. Chinese decision-makers are feeling increasingly pressured to improve the environment, as activists are willing to confront them a more frequent basis than before. Such confrontations have taken place because of the Chinese authorities' desire to be a superpower that does not need to rely on other countries. The drivers for environmental confrontation are at the same time what makes engaging people in environmental justice difficult. Many members of civil society in China are more interested in a Westernized, materialistic lifestyle than they are in environmental improvement. Such an approach is likely not sustainable in China. As I have already emphasised, if an environmental activist action seems to be successful, it may not be. In many cases, the actions do not reach less visible and rural areas, where people are generally afraid of state actions. For example, pollution is frequently denied by the very people who live smack in the middle of it. Many are too afraid to speak up due to fear of ridicule, losing their jobs, or losing status. Unrest about pollution is widespread, even in rural areas. Unrest over environmental issues is likely to increase as pollution continues with the move of factories to rural areas to increase development, which will likely result in an even higher level of environmental injustice. For this reason, it is likely that the Chinese government's control of civil society will become even more strict. Those who rely on polluting jobs to sustain themselves are less likely to complain than others, even though they are the ones who suffer the most. Awareness of the possibility for improvement is, therefore, a necessity. New alternatives for public participation should be mobilised, as governmental institutions seem to lack interest in resolving citizen's concerns surrounding environmental issues. When people have more knowledge about their situation they may become more aware that their living situation is not a helpless one, but rather one that can be improved with the

help of the right people. Opening up for more efficient public participation would include a higher rate of information being released to the public, allowing discussion of environmental challenges, and participation throughout decision-making processes. When those who live with environmental injustice will be able to participate more in the resolution of environmental challenges, it is likely that EJ will improve.

The cancer-village challenge is not likely to improve any time soon, even if strict policies for environmental change are implemented shortly. A negative change in the environment is long-lasting and widespread. Thus, it will last long after strict environmental policies are in place and enforced. Most causes of pollution are likely to continue, despite the proven dangers, as China's government is preoccupied with economic growth, and normally follow an approach that does not favour the environment.

However, the Chinese government is paying more attention to the environmental challenges, and even local governments are paying closer attention. Since the official recognition of cancer villages, several plans to limit their damage have been put into motion. Many billions of dollars have been set aside and spent on attempts to improve air pollution, and the environmental laws and policies have been made stricter. Finally, as a take-home message, my conclusions based on the four questions have revealed some important issues of environmental justice as highlighted below.

Conclusion

Decision-makers in China has for most of the country's history been influenced by leaders prioritizing development rather than a healthy environment. China has since the end of Mao's rule put a great deal of effort into lessening the environmental challenges the country faces today. It is clear that the Chinese's use of their natural environment is deeply embedded in the country's history that put tremendous emphasis on production, and historical philosophical beliefs that still remain today. China has moved from a developing country to an economic superpower so quickly that the environment has been unable to keep up with the changes. As China has developed into a market-economy, environmental degradation has gotten worse. Yet, several attempts have been made by the governmental powers to improve environmental challenges.

Much of the reason why China is trying to improve its environment, is not only for their own benefit, but to gain a positive "face" in the eyes of other nations. In such an image China is perceived as a strong, wealthy superpower with a healthy environment. Doing so is possible through the economic boost China has experienced. However, gaining face also puts immense

pressure on both the environment and the economy.

Today, levels of pollution are still dangerously high. Corruption and unwillingness in the resolution of environmental issues, together with many cancer villages, show that China still has a long way to go before they are on the right track toward a healthy environment. If Chinese decision-makers continue to disproportionately place environmental harm, there is no hope for environmental justice or a healthier environment. China's economic development is still reliant on coal-burning. And so, pollution is likely to continue with minor improvements. A major challenge for China when cleaning up their environment is to ensure more public participation both for organisations and individuals, where people are allowed to oversee processes and to voice their concerns. China's environmental challenges are not an easy fix, but environmental activism has helped improve environmental justice. It has put pressure on decision-makers to develop more environmentally friendly policies. This is a reason why there is a need for decision-makers to listen closely to opinions expressed by the public and ENGOs. Those who are victims of environmental injustices should not be ridiculed and discredited. They should rather be listened to, and have their opinions taken into consideration throughout decision-making processes. A more inclusive level of public participation comes with the possibility of environmental policy to positively influence EJ in China. There is more confidence in the legal system among the public which has generated more involvement with environmental issues. This is likely because there seems to be a development of better transparency politics, which has led to more widespread beliefs that the environment needs protection.

ENGOs are working hard to bring more attention to environmental issues among the public and the government, which has led to increased environmental justice, and closer attention being paid to environmental issues by the Chinese government. New technology has contributed to extensive empowerment of the population. People are now able to communicate and organise themselves more effectively and to get information about their rights. Environmental activism has shown to have a positive effect on how the Chinese government works with environmental issues, which ultimately has had a positive effect on EJ. Nevertheless, there is still a long way to go before China will be able to boast strong environmental justice, and sufficiently enforced environmental policies. However, with the Paris Agreement and the new environmental laws in place, China is showing a clear commitment to the improvement of their environment. With clear environmental policies in place, and allowing more room for ENGOs to operate, one should remain hopeful for climate

improvement and environmental justice in China, if environmental policies are strictly adhered to.

Chapter 9

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Chapter 10

Annex and Endnotes

Terminologies

Environmental Activist

“Environmental activist” refers to anyone who has partaken or is currently partaking in any sort of activism or demonstration(s) that advocate for a healthier environment, either online or in-person.

Environmental Challenges

For the purpose of this thesis, environmental challenges refer to challenges wherein environmental safety is compromised. Meaning, more specifically, heavy pollution of air, water, and/or land.

Environmental Justice

Environmental justice is a principle of non-discrimination, ensuring that there is no segregation when it comes to access to basic environmental goods such as safe water, air, and land (Balme, 2011). Further, environmental justice advocates for equal treatment in policy and legal procedures. Meaning, no matter where you live, you should be able to live in a safe climate. Environmental justice will in my thesis be understood as an equal implementation and litigation of rights related to access to and protection of safe access to environmental goods (Balme, 2011).

Environmental Policy

In this thesis, “environmental policy” refers to any policy, currently being developed or already implemented, that deals with environmental challenges. It can be a policy on the state or local level.

Public Participation

Public participation is a concept that allows people to take part in decision-making processes. It includes rights such as rights to organise, comment, and rights to information (Moore & Warren, 2006).

Concepts of Environmental Justice

When looking at where environmental justice is stronger and where it is weaker, there are four closely related concepts noted by Xie (2011a) that must be analysed. These are distribution, recognition, procedure, and participation.

Distribution

Environmental distributional injustices mainly deal with unequal distribution of pollution. Chinese environmental policy-makers usually pay little attention to distributive justice. The goal of the environmental distribution is to reduce the disproportional and concentrated pollution, which to a large degree impacts the poorer parts of the population. Chinese environmental policy-makers usually pay little attention to distributive justice.

Recognition

Recognition means recognizing and respecting different social groups, and their needs and wants. Such social groups may be based on ethnicity, economic standing, or cultural identification. Such recognition is a precondition for environmental distributional justice.

Procedure

Procedure is about the process of environmental policies, how they are developed and how they are implemented. If the process is not open and fair, or if the public and their opinions are not respected, it is an injustice. Procedure is a non-discriminatory action.

Participation

Participation highlights the right of the public to participate in state environmental governance. Individuals and groups must have access to participate if they so wish, without repercussions.

These four concepts all highlight the right for everyone to voice their concerns and to have decision-makers take such concerns into consideration.

End Notes

ⁱ Carbon Dioxide (CO₂) is likely the most talked about gas associated with greenhouse warming effects (WHO, 2005). The gas is formed through man-made activities, such as coal-burning, deforestation, and the use of vehicles. It can also be formed through natural processes.

ⁱⁱ Sulphur dioxide (SO₂) is a toxic gas that can be found in the air. It has proven to have negative health effects, particularly on and the respiratory system (Katsouyanni et al., 1997). The concentration of Sulphur dioxide in China is very dense, making it is among the most harmful air pollutants found there. The levels of Sulphur dioxide far exceed WHO's guidelines in most Chinese cities (Xie, 2011a), despite recent improvements.

ⁱⁱⁱ Nitrogen dioxide (NO₂) is a gas that can form naturally in the atmosphere. However, most nitrogen dioxide found in polluted areas is not naturally formed but is rather a result of human-made pollution (Australian Government Department of the Environment and Energy, 2005). Like Sulphur dioxide, it has a negative effect on people's respiratory systems if one is exposed to a high concentration of NO₂. The negative impact is especially seen on airway resistance. In addition, the gas is able to absorb solar radiation, which has a negative impact on atmospheric visibility (WHO, 2005).

^{iv} Fine particulate matter, commonly referred to as simply PM_{2.5}, is fine particles found in indoor and outdoor air. Most PM_{2.5} in China is due to the use of industrial and domestic use of coal, and vehicles (He et al., 2001). PM_{2.5} contains the smallest droplets of particulate matters and pose the greatest risk to health. Particles are so tiny that they frequently get into people's lungs and even bloodstreams. Like nitrogen dioxide, PM_{2.5} also negatively affects visibility (United States Environmental Protection Agency, n.d.).

^v Nitrogen Oxide is a pollutant often generated through urban sources. The pollutant is usually found in high concentrations in urban areas, and not as much in rural areas. Coal burning is a significant reason for the formation of nitrogen oxide (WHO, 2005)



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