

Living on the Edge of Sustainability

Popular Attitudes Towards Water Pollution
in Zhejiang Province

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Abstract

The development of Chinese environmental politics has become an ever-increasingly hot topic. The country's economic boom spanning the last four decades have left undeniable marks on its nature. Although central authorities have in recent years proved substantial willingness to retire Deng Xiaoping's developmental mantra "pollute now, clean up later", there is still serious uncertainty towards how they will transfer this willingness into substantial results. Interestingly, Zhejiang Province was in 2018 awarded with the environmental prize "Champions of the Earth" by the United Nation Environmental Program, perhaps indicating an already promising development. The award committee especially stressed Zhejiang's achievement in the field of water quality restoration. Curious about how to square this acknowledgement with the conditions I myself had experienced on the ground in Zhejiang, I set out to investigate closer the lived realities in this obviously pioneering province. I especially explored the question how, in the wake of the province's water clean-up projects, people in the province understand and relate to environmental hazards brought about by water pollution. My thesis is an ethnographic study based on qualitative interview research conducted in Zhejiang. Based on data I collected in two research sites, I have worked inductively by organizing my findings in three different categories which I identify as representative: Environmental culture, developmental attitudes and individualistic attitudes. I also put these findings in dialogue with the existing related literature to discuss how these lived realities can be understood better, and discuss the implications of my findings in the context of China's potential future environmental development.

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1 Introduction

Over the last four decades, China has sustained an astronomical economic development and has proven observers wrong time and time again by overcoming seemingly impossible challenges on their way. However, as a byproduct of this, albeit not completely accidental, the environment has suffered tremendously. Deng Xiaoping opened the gates to development both with policies and a new mindset, and tried to shed the weight of ideology in order to rebuild the Chinese economy when he spoke the words “pollute now, clean up later” (Lora-Wainwright, 2017, p. 18). Having this mantra as a driving force of development has come at great environmental cost, polluting air, water and soil, threatening the health of hundreds of millions of Chinese. However, already in 1992 the CCP started preparing for a more sustainable line of politics following the Earth Summit in Rio, and has since gradually upped the ante when it comes to less vague formulations and more concrete policy implementations (Schmitt, 2016, p. 74). By now it has long been clear that Deng Xiaoping’s mantra has reached its limits, and that the urgency of the situation is no longer a question. This has been reflected in a long list of ideological, political and regulatory changes that have happened in the last years, maybe most markedly with Xi Jinping’s final embrace of “ecological civilization” as an ideological and political guideline in 2013 (Hansen & Liu, 2017, p. 1).

Observers have been following this development closely for years, trying to assess the weight behind party ideology, and evaluate the factors at play for it to materialize in effective policy changes. While there has been a lot of attention given to how central authorities in recent years have proved tremendous will and effort to invest in a green turnaround for the country, there have also been certain doubts to whether it could ever be enough to make a substantial change. In spite of astounding numbers of installed output of renewable energy sources, and positive media headlines regarding improved air quality in its metropolises, the Chinese economy is still heavily dependent on coal. Consequently there has been a prevailing uncertainty surrounding how they will continue to lift their population out of poverty while at the same time becoming more environmentally sustainable. It was therefore exciting to see the United Nations Environmental Program (UNEP) in September 2018 award Zhejiang province with their most prestigious prize, Champions of the Earth for their success in cleaning up the water in the province. Indicative of how the province has been leading ahead in the country’s

green turnaround, I was interested to study how the people living in Zhejiang perceived their surroundings, and how they related to pollution following such international recognition.

Zhejiang Province has traditionally been renowned for its beautiful lakes, rivers and canals. Along with the rest of its natural environment, the region's water resources were badly neglected during economic reform in the 1980's and 90's. In 2003 however, the province initiated the developmental program The Green Rural Revival Program¹ (GRRP) (“千村示范、万村整治”工程 (abbr. 千万工程)), with a particular focus on sustainability and water protection, for which they were awarded the prize by the UNEP. In 2013 the Five Waters Joint Treatment Program (author's translation 五水共治) followed, further focusing the province's efforts to reclaim its clean water. According to the UNEP, following the GRRP, “97 per cent of villages in Zhejiang have transformed their polluted waterways into clean, drinkable rivers” (UNEP, 2018). This message and the impressions it inspires, contradicted greatly with both my personal observations and the responses I had gotten from people living in some of these villages during my fieldwork in the region. I was intrigued by the perceived discrepancy in the stated, lived and observed reality of local environmental conditions on the part of the people I met every day. I therefore decided to explore this seemingly ambivalent reality through the eyes of this region's inhabitants, amidst the still incredibly rapid development in China, and with a specific focus on perceptions of water pollution and possible solutions for it.

Knowledge proved to be a central factor for all my research. As the information concerning environmental conditions available to people is limited, and often biased, people are left to maneuver the contingent risks based on other means, like faith, word of mouth and tradition. Adding to the complexity are the problems in establishing sound connections between environmental resource pollution and health issues, making it impossible for lay persons to ever know the true extent of such risk. This further complicates the reality of those exposed to pollution and often leads to surprising narratives used to explain environmental conditions, since, as Anna Lora-Wainwright et al. write, this is inextricably related to the “social, political and economic contexts” people live in (Lora-Wainwright, Zhang, Wu, & Van Rooij, 2012, p. 123)

¹ Translation taken from the web pages of the UNEP

Most of the scholarly work being written on this subject has looked at cases of severely polluted places to better understand the contention and activism rising up from such issues.² As my study is situated in Zhejiang Province, known as both one of the wealthier and cleaner provinces in the country, my research can contribute with a focus on what is happening at the other end of the spectrum. In spite of the area's green development projects, pollution still persists and this thesis is an inquiry into how ordinary Chinese in Zhejiang province understand and relate to the current situation. Through a case study looking at water pollution, I want to analyze what sentiments and attitudes are carried towards the general development, and see how people potentially rationalize environmental hazards as part of a bigger picture, and under the impression of an ever stronger environmental policy framework. This is all done in the context of Zhejiang's position as a leading star in China's environmental turnaround. I will therefore investigate the question:

In the wake of Zhejiang Province's water clean-up projects, how do people in the province understand and relate to environmental hazards brought by water pollution?

I wanted to explore these dynamics to better understand the current environmental situation for people in Zhejiang, as this province is leading ahead in the country's green transition and therefore decided to conduct an ethnographic study in the village Dipucun and the city of Jinhua. Due to the complexity of the topic coupled with the limitations of my sample, and the very diverse narratives I was met with in the field, I have decided to conduct an inductive study. This was further motivated by the fact that, notwithstanding the encountered complexities, I soon discovered some common patterns and repeated narratives in the responses I received. Altogether, this means mainly that I will present, analyze and categorize my findings in their own right, before I connect them to existing literature and theoretical frameworks, which help me to explain some of the main patterns and categories I have come across.

In particular, in spite of the contemporary foundation of this subject, I believe that it is important to take into account also the historical context. Most attention to environmental degradation in China today is situated in the context of the country's economic surge in the

² See Anna Lora-Wainwright, Benjamin Van Rooij, Bryan Tilt, Jennifer Holdaway for extensive literature on this field

last four decades. While it stands true that this epoch has had disastrous effects on nature in China, what is often omitted is that pollution and natural destruction was already for long a fact of life by the beginning of Reform and Opening up in 1978. I believe that some of my findings only make sense with Chinese history as a backdrop. I will therefore also include a discussion of the historical relation between man and nature in China in an attempt to better understand the factors at play in the current struggle to become a more sustainable society. Much has been written on different dimensions of this issue, and writers like Vaclav Smil (1984, 1993) and Robert Weller (2006) will be vital for the historical foundation of this thesis, whilst the quickly growing field of research on environmental issues in China has provided ample sources to understand the current conditions. I lean particularly on Anna Lora-Wainwright (2012, 2013a, 2013b, 2017), Judith Shapiro (2001, 2016) and Bryan Tilt (2010, 2013a, 2013b) and their contributions to the fields of environmental degradation and perceptions of pollution. Although my research will be a humble contribution to the field, I think it can provide some interesting context, based on insights from a region that is supposed to be leading ahead in China's current environmental development.

1.1 Structure of Thesis

In the second chapter I provide some context to my thesis by explaining the recent developments in China generally and Zhejiang specifically. This includes the two programs mentioned above, The Green Rural Revival Program (GRRP) and The Five Waters Joint Treatment Program (FWJT). I also include a discussion on Ecological Civilization as I see this as an important lens to understand current environmental politics in China and the ambitions of central authorities. I believe it stands at the center of what I see as a transition in the country's developmental paradigm, and is therefore telling of the rationale behind current development.

The third chapter details the methodology and research design of my thesis, which also includes a discussion on how I have organized my findings, and how I relate them to different theoretical frameworks.

In my fourth chapter I lay forth my findings in three different categories; Attitudes embedded in tradition, developmental attitudes and individualistic attitudes. Following each category I discuss relevant literature and place my findings in a greater context.

The fifth chapter is a combined discussion and conclusion where I draw longer lines between my different categories to answer my research question.

2 Background and context: The Recent Emphasis on Protecting the Environment in China and in Zhejiang Province

Here I first present a brief summary of the most recent developments in environmental politics in China, before I introduce the campaigns implemented in Zhejiang that target water resource protection and that form the foundation of my thesis. It follows the development chronologically and that is why Ecological Civilization is placed between the two programs.

2.1 From Environmental Villain to Champions of the Earth

In spite of CPP's commitment to and emphasis on sustainability after the Earth Summit in Rio in 1992, it would still take many years for real related action to take form. The reason for this discrepancy is a widely discussed topic. It would be easy to imagine that the Chinese political leadership in reality was not that interested in the environment, and that the talk about sustainability was only a political mask the government put on in international diplomacy, or when met with demands at home. However, a lot of research also points to the possibility that it is due to a lack of ability, with structural impediments halting political action (Ahlers & Shen, 2017; Lo, 2015). There is still a desperate need for continued economic growth in China, where still hundreds of millions of people waiting to be included in reaping the fruits of growth and development, and environmental priorities will always have to compete with the economic ones. Kevin Lo (2015) argues that the mechanisms put in place to meet both environmental and economic targets have greatly favored a continued focus on the economic ones. Local government is put in a double squeeze when they are expected to sustain economic growth while constraining companies and regulating emissions. This has in turn led to problems with misinformation, and neglect of environmental objectives (Lo, 2015, p. 157). Wong and Karplus (2017) discuss whether the latest increase in attention on the matter would alter the central government's ability to make substantial change happen. In 2013 the country experienced the so called "airpocalypse" a series of very badly polluted days in its north eastern region. Later that year the State Council published the Action Plan for Air Pollution Prevention and Control (APAP) in line with the ambition of creating an ecological society

(State Council, 2013). In March 2014, Xi Jinping's administration claimed war on pollution, and in 2015, the journalist Chai Jing released her film "Under the Dome", prompting more than one hundred million views in the days following its release (Lora-Wainwright, 2017, p. 16; Wong & Karplus, 2017). It was later on banned from the internet in China. Safe to say, the environment has become a hot potato attracting close attention both from the public and the authorities. Nevertheless, Wong and Karplus fear that as long as the central government does not intend to change its micro-management methods and let market based instruments come into play, the problem of uncontrollable local governments will persist (Wong & Karplus, 2017, p. 681).

As the richest province in China, with an image of natural beauty, Zhejiang has been the site for several environmental test projects in China. Ahlers and Shen (2017) argue that discretion for local environmental projects can be an efficient measure to solve problems of implementation capacity, and a good way to open for local innovation in tackling these challenges. It is then also interesting to see Zhejiang Province receiving international recognition for their water cleaning efforts. The Green Rural Revival Program that won the UNEP's Champions of the Earth prize was initiated by Xi Jinping during his time as the secretary of the provincial party committee in Zhejiang in 2003 (Wu, 2018). Due to the uneven development of cities versus the countryside, the project was created to make up for the imbalance, and holistically lift up the rural parts of Zhejiang economically (Ministry of Agriculture, 2003). This was done, coated in the characteristic language of the CCP, with the goal of targeting "dirt, chaos, low-quality and fragmentation" (脏, 乱, 差, 散), while aiming for beautiful villages, filled with affluent and strong communities (美村, 民富, 班子强). This was to be done on the basis of the principles:

"At the farmers own will, working in line with local circumstances, through organized action, holistic planning, while protecting the environment, through harmonious development, with the people as foundation and executing with a focus on the entirety" (Zhang, 2006)

In other words, it was not intended to be a program specifically targeting water, but rather a general development program. It both emphasizes the support for left-behind communities and their own joint efforts in building a strong, harmonious countryside. The set of values

promoted as its foundation is also broad, including environmentalism, harmony and affluence, pointing out the central authorities' developmental aspirations.

As for the environmentally focused part of the program, although it was awarded by UNEP for their success in cleaning up the rivers in the region, it was equally vague as well. Under the main locus of The Green Rural Revival Program lies the Beautiful Village Project (author's translation 美丽乡村建设), which is a lower level organization with its own branch in the village governments (Wang et. al., 2014). Here there are village cadres who are working directly with the extensive efforts to improve the overall appearance of the villages, by paving roads, lighting up the streets and raising hygiene levels through waste management (Zhang, 2006). While it is true that there have been appointed 61,000 "river chiefs" (UNEP, 2018) to manage all water bodies, it is only one of many measures initiated by the program to lift the living standard in rural Zhejiang. On my trips to different villages in the province, I was quite surprised to see how much attention was given to recycling, with garbage cans in different colors spread out both in public areas and in people's homes. This was often also the first thing people would point to when I asked about recent development. As the Chinese name of the program makes clear it is designed as a model system³, where a thousand test villages are first elected to develop the program so that it later can lead the rest along (Wu, 2018). This year, in 2019, it was expanded to include other parts of the country as well, with, amongst others, Henan Province also initiating the program (Wang Shuo, 2019).

2.2 *Ecological Civilization*

The concept of "Ecological Civilization" is important because it has come to be seen as a new threshold of Chinese authorities' investedness in the environmental turnaround and serves as a valuable lens to understand Beijing's view on central matters like sustainability and development. It is important for my thesis, because it is the backdrop for the programs being implemented in Zhejiang and telling of the ideology that are then propagated throughout the country. The term Ecological Civilization is not new and has been appearing in different discourses since it was first introduced in China in 1987 by the Ecologist Ye Qianji. Not

³ "千村示范、万村整治"工程 "Qiancun shifan, wancun zhengzhi" gongcheng, meaning "With a thousand villages as example, ten thousand will be renovated" program. (Author's translation)

coincidentally that was the same year as the release of the Brundtland report which officially introduced *sustainable development* as an international ambition (Marinelli, 2018, p. 372). Ye was originally known for working with ecological agriculture, but already by the late 1980s he was devastated by the overall state of the Chinese environment, ascribing the degeneration to a lack of civilization. He was warning of how the economic development was creating an ecological crisis, asserting that the nation would have to stop seeing nature only as a resource for human consumption. He advocated the need to build a society that co-exists with nature in a mutually beneficial relationship, but did however not think that this would be feasible until the 21st century, when the Chinese society had become “civilized” enough to shoulder this responsibility (Wang, 2013). It took some time for the concept to make its way into political discourse, and did initially only elusively appear in the news on a few occasions (Schmitt, 2016, pp. 79-80). Then, two decades later, the concept was finally included as a proposed plan for future development in Hu Jintao’s report from the party’s 17th national congress in 2007 (Ma, 2007). It then looked like a promising step in the discourse, with an increased focus on sustainability and environmental concern, and the state-run newspaper China Daily’s report on the matters seems to aptly portray this seriousness:

“It is not a term the Party has coined just to fill a theoretical vacancy in its socialism with Chinese characteristics, but rather a future-oriented guiding principle based on the perception of the extremely high price we have paid for our economic miracle.” (China Daily, 2007)

However, as mentioned before, sustainability had been a recurring theme in government discourse for 15 years already without exerting a great impact on the mode of development. The same structural obstacles were still in place, and a substantial redesign of policy implementation would be necessary to achieve the change needed. That was why the release of the *“Opinions of the Central Committee of the Communist Party of China and the State Council on Further Promoting the Development of Ecological Civilisation”* in 2015 received as much attention as it did. It was not because it restated the promise of a sustainable future, and a new ideological foundation for a greener China (which was already old news); its importance lies in its systematic plan to challenge the abovementioned obstacles and by laying out standards, mechanisms and measures needed to fill the implementation gap affecting former policy and to realize the already long expressed ambitions (Geall, 2015).

These new measures to hold local politicians accountable, ensuring both incentives for successful environmental objectives and punishment for violations, show the Party's will to address the problem and commit to the sustainable future it has advocated for so long already.

Something that has been at the core of the discussion regarding Ecological Civilization is how it relates to the concept of sustainability. Ecological Civilization sounds vague both in English and Chinese, and there have been zealous effort among observers of China to rein in its true meaning. Sustainable development is usually understood as something in the lines of the definition laid forth by the Brundtland report in 1987, which emphasized the environmental concerns and the need to construct a development model that do not compromise the opportunities of future generations (*Brundtland, 1987*). Ecological civilization spans broader than this, where Schmitt writes that; "Ecological Civilization is an attempt by the CCP to place the concept of sustainability within a more culturally salient environmental ideology" (Schmitt, 2016, p. 74). Rather than aiming for sustainability alone, the concept has become a platform to incorporate sustainability into the already established developmental model China is now fueled on. Importantly, this means that the goal is no to halt industry in order to spare the environment, but instead support technological innovation that can solve the already serious environmental challenges the country is facing to sustainably propel the nation into a prosperous future (Hansen, Li, & Svarverud, 2018, p. 201).

Yan Yunxiang writes that China's modernization project has been measured by material standards alone, with the goal of becoming strong state, a wealthy nation, with prosperous individuals (Yan, 2010, p. 507). However, with the increasing challenges posed by environmental degradation and pollution, central authorities have had to expand their objective. Where they before have claimed their authority solely based on a promise of continued development and shared prosperity they now have to take into account the potentially fatal consequences posed by environmental destruction. They therefore attempt to collectively solve the opposing challenges they face in order to achieve this while maintaining balance between different demands. Hansen et. al. explains how they seek legitimacy for these efforts by inferring to a historical legacy of environmentalist philosophy and traditions (Hansen et al., 2018, p. 196). The national developmental project has in other words been adjusted to better fit the complex realities currently facing China. Central authorities are therefore framing themselves as the carriers of ancient environmentalist traditions injected

into a socialist model that will ensure the country a prosperous and green future supported by technological advancements (Hansen et al., 2018, p. 199)

2.3 *Five Waters Joint Treatment* - 五水共治

Water is a local pride of Zhejiang. As Wang, the leader of an environmental nongovernmental organization (ENGO) told me: “in China, there is a city where they use mineral water to flush their toilets” talking about Jinhua, and how their water was so clean it practically could be filled on bottles and sold as mineral water. However, the economic success of the province has taken its toll on the environment and its inhabitants’ proud heritage. In 2013, following Xi Jinping’s launch of the Ecological Civilization and a typhoon ravaging the province with floods, the Provincial Party Committee released a new policy, the Fiver Waters Joint Treatment (Peng, 2018). The environmental degradation had already caused the province a headache for some time, and when the opportunity arose with the new emphasis on environmental sustainability, water became a starting point for this effort. The program is built around five ambitions: to handle waste water, protect against floods, improve water drainage, protect the water supply, and decrease water usage (治污水、防洪水、排涝水、保供水、抓节水) (Han, 2017) . While the two other programs I have discussed are focused on the countryside, The Five Waters Joint Treatment covers the entire province, and was oftentimes mentioned during my research in Jinhua City.

Xu Guangjian and Lu Yunzi write that after having studied the program closer, they realized that in spite of its five overarching ambitions, the waste water, and thereby environmental pollution regulation efforts were really its main target. Building on the already implemented systems of the Green Rural Revival Program, they work according to the core principles of starting from the source, and adjusting measures to local conditions (Xu, 2019). Contrary to the positive attitudes towards the program as displayed in my interviews, Xu and Lu argue that it has not been sufficiently effective, and ascribe this to a lack in inclusion of public and nongovernmental participation. Nevertheless, all my respondents in Jinhua expressed optimistic attitudes towards the environmental progress in the last few years. This might display significant differences in superficial and substantial results, as the visible improvements are not well reflected in the measured results by Xu and Lu. However, I would

rather argue that it is equally plausible that this could be ascribed to differences in expectations, in this case of the researchers and the people I interviewed. Nonetheless, it is interesting to see my informants' widespread recognition of and satisfaction with the development as a result of the program already after a few years. As I will not attempt to pass any judgement on the objective conditions accessible to me on the ground, this will naturally be the focal point of this thesis.

Furthermore, since the Green Rural Revival Program received such international honors, I hypothesized that this would potentially be used by the authorities as proof of their success, and possibly help sway the public into satisfaction. However, when I brought it up in my interviews, no one who seemed to have even heard about the program. During interviews in Jinhua City people would mention or recognize the Five Waters Joint Treatment, almost only in positive ways, except perhaps for some slight nervousness towards its possible impact on the economy. In the village Dipucun, the Beautiful Village Project was also often mentioned in the same positive context, but in both cases people seemed to put very little emphasis on the content of the programs or the ensuing concrete targets and measures. To me people's knowledge of them appeared to be rather a general recognition of certain environmental progress being made without attributing greater meaning or interest to them. So in spite of my initial assumption that these policy programs for water resource protection would be a central part of my research, they turned out to only have an indirect impact on the attitudes and understandings I found. Nevertheless, I do see them as vital for the context of my thesis due to the ongoing related concrete efforts and their international recognition. Not least, people's lack of recognition of the concrete policies, in spite of their heavy propagation and implementation in the province and beyond, can be regarded as a finding in itself, challenging common views of, for instance, the reach and effectiveness of policy propaganda in China.

3 Methodology and Research Design

I was interested in looking at what was happening on the ground, and to learn more about how ordinary Chinese people relate to the state of the environment and politics of sustainability (meaning policies and regulations to hinder environmental destruction). I was living in Hangzhou City in Zhejiang Province and the conditions I experienced were far from the worst I have witnessed in China. Nevertheless, I was greatly surprised by the truly optimistic outlooks people expressed, as there were still persistent visible issues with pollution. We are still at an early stage of the substantial efforts by the CCP to implement their concept of Ecological Civilization as a central part of society and I believe that what we see today in the regions leading ahead can tell us a great deal about the political climate these efforts are being initiated in. How the Chinese themselves relate to pollution and understand the current prospects of a sustainable future can make a great impact on the leadership's ability to continue to shape the nation's development, and influence the political emphasis in either a greener or more traditional economic direction.

3.1 *Research sites*

I started my research in the village Dipucun, located about 70 km southwest of Hangzhou, higher up along the Qiantang River. There are 700 households in the village, but with a large majority of elderly people both due to the trend of young people moving out to find jobs, and because the village had initiated a program to attract retired people to settle there. Dipucun markets itself on being a place with a long historical heritage and of natural beauty. A part of the village consists of buildings from the Qing Dynasty, and is together with several temples and clan buildings part of a tourist path through the village. In 2013 they also started a larger project to increase their attraction as a tourist destination. Amongst other things they invited outside private funding for a large flower park combined with certain theme park elements. During its first three years, the park attracted a lot of people, and greatly boosted the local economy. However, the great influx of visitors was by many ascribed to campaigns and reduced prizes in this period, and as soon as those programs stopped, the business dried up again. Now the most visible remains of the tourist industry are the empty park along with old

ladies selling snacks and knitting souvenirs in the streets. The recent decline in the local economy was an apparent theme in the village, and often mentioned in interviews.

I got access to the village through a group assignment in one of the courses I attended at Zhejiang University during my exchange there in 2018. The first two field trips for my research were therefore conducted as a group of four, with two Chinese, and one other Norwegian classmate. Through observations and discussions in the village we found that Dipucun presented some interesting conditions for studying water pollution. During the last few years, the village has been a site for some drastic changes, among them the construction of both a high-speed railway and a highway, now running straight through the village. This has had some serious repercussions for the local water quality: the most prominent and widely known problem among the villagers was a drastic decrease in groundwater levels, and periods with yellow and muddy waters, killing all the fish living in it. On the brighter side, in addition to this, the village is part of the Beautiful Village Project and the villagers have as a consequence of this been able to fend off a number of adjacent factories, limiting some of the local pollution. In other words, the last few years have been rather eventful in regard to environmental change, and the villagers were for this reason particularly connected to the problems of my interest. The visibility of some of the issues also helped me concretize my questions, allowing for easier communication about the issues.

The choice of Jinhua as a research site was also a combination of accessibility and suitable conditions for data collection. Through connections at Zhejiang University, I was able to get in touch with the environmental organization Jinhua Green Friends (author's translation) (金华绿色之友), from whom I got information about their local issues, and who helped me locate some interesting sites. The city is located centrally in Zhejiang province, about 180 km southwest of Hangzhou, but conveniently connected by high speed rail and reachable in less than an hour from the provincial capital. It has a population between four and five million people, and is located in an area that has been associated with dense industry based on processing and manufacturing of glass and metal goods. This has led the area to enjoy a certain level of economic prosperity, but which has also come at great cost of the water quality of the two rivers connecting in and running through Jinhua city. In recent years however, the water managing programs of the province have had a great impact on the city, and much of this industry has been moved elsewhere, and far stricter regulations of water

pollution have been put in place. This is not to say that they do not face persistent issues. The river still runs green and shows serious levels of pollution, but little compared to a few years ago when factory waste waters were emptied straight into the river and dead animals were regularly floating downstream.

3.2 *Qualitative method*

Since I wanted to do an ethnographic study, looking to explore how people in Zhejiang understand and relate to water pollution in their localities, I found it most expedient to opt for a qualitative research design. I was dependent on gradually working my way into the field, recognizing the core issues, and establishing a mutual understanding with my respondents, and was therefore forced to maintain a flexible approach. I had written down a list of questions on beforehand that I was looking to get answers to, but due to the nature of the conversations, this was done through semi-structured interviews where I, as far as possible, would let my respondents elaborate freely, with me only leading them into each topic. In total, I conducted 27 interviews with respondents I searched out in the streets of my two research sites based on certain objectives I will describe soon. 17 interviews were conducted in Dipucun village and 10 in Jinhua City. Additionally, I interviewed the former village head of Dipucun, a village cadre and the leader of the ENGO in Jinhua, all of whom I was introduced to by contacts at Zhejiang University.

There is a Chinese saying that goes; “heaven is high and the emperor is far away” (Fei, 1947, p. 113) and for most people, national politics remain distant and unrelatable. Changes made by central authorities of course affect people’s lives, but it does not mean that they always know the reason why, or that for them knowing or not knowing makes any difference at all. In my interviews, almost as often as not, people shrugged at the idea of bothering themselves with national politics, and regarding expressed attitudes towards policies from above, it was often difficult to obtain clear answers. Nevertheless, much can be understood from the way people design their lives, and the choices they make on an everyday basis. As mentioned in the introduction, the UNEP in part explained awarding Zhejiang with the Champions of the Earth prize with them having cleaned up 97 per cent of their water ways to drinkable levels (UNEP, 2018). Not only did this contradict greatly with the conditions I observed myself in my two research sites, but observing the people and talking to them also quickly led to the

same conclusion. In Dipucun village, people's immediate response would often be that there were no problems with the water quality, only to later on explain the distinct usage of their three different water sources in order to minimize both costs and health hazards. No one seemed to even consider anything but boiled tap water for drinking, and the water flowing through and by the village was only used for washing clothes. Additionally every home had its own well that people used to wash dishes and vegetables. These difficulties to communicate properly quickly became evident, as life in rural China proved different to anything I can relate to in my own life. I had to do my utmost to lay my own preconceptions aside to be able to understand their lived reality and their inextricable relation to water. These cultural gaps forced me to repeatedly redesign both the premise for my whole research and the angle of my interviews. I mistakenly thought that water and pollution could be treated as objective measures, but came to realize that something so tightly connected to one's life and existence inevitably will be shaped by one's own life story. Even though it was immensely frustrating at times to feel that respondents would not answer what to me appeared to be simple questions, or seemingly changed the subject at will, this was what led me to realize the relative values of my topic. Such frustrations are probably part of all research done in places far from home or of foreign realities. I was fortunate to carry with me the lessons of Silverman and O'Brien, both greatly experienced researchers, on how plans can evaporate and projects change to the unrecognizable (O'Brien, 2006, p. 28; Silverman, 2009, p. 146), which probably supplied me with the patience needed. For research to be objective, ethical and transparently conducted, the researcher have to remain adaptable and cognitive of the widest range and complexity of conditions he or she finds in the field. This will usually take the project in unanticipated directions, and while it can oftentimes feel frustrating, it can at the same time be greatly awarding when it leads to new revelations and understandings of an issue.

3.3 Field research; the rural versus the urban scene

When we first arrived in Dipucun we first wanted to familiarize ourselves with the place, and spent the first day only observing and talking to people without a set objective. The hope was that this would allow us to better understand the local conditions, and better assess how to design our project. It felt valuable to be part of a group, and especially to have Chinese classmates collaborating in this regard. After our little exploration we came up with three

different hypotheses and planned our questions in a way that we hoped would allow us to explore these in the best way possible. We believed that we had set the widest parameters we could allow ourselves to work out from, but nevertheless, as soon as we began conducting our interviews, we realized that the whole project was founded on false presumptions. Having seen the pollution with our own eyes and heard the village leader talk about how the infrastructure projects had destroyed the village's ground water resources, we assumed that people would be fundamentally dissatisfied with the last few years' development and based all of our three hypotheses on that assumption. By the time of our first few interviews, however, it became clear that our questions did not lead anywhere, and that we would have to rethink the foundation for our whole research. It was interesting to see that even though we had collaborated with two of our Chinese classmates in developing our research, one even a native of Zhejiang Province, we were still completely unable to foresee even the fundamental nature of the responses we got. We therefore had to redefine the foundation of our research to better fit the conditions, allowing us to ask questions that better facilitated a mutual understanding of the issues that seemed relevant on site and for our topic.

When beginning an interview, there is a lot happening simultaneously, and establishing good communication is dependent on a lot of discrete details. We found that building up mutual trust in the beginning by conversing on related subjects was often effective, and we also chose to adopt a more gradual approach into our main subject of interest. This also proved valuable later on when we started analyzing our data as we got a much richer context to our questions when the respondents were allowed to bring up subjects more freely and were not steered only towards the matter we had set out to explore. This helped to reveal their own priorities, and understanding of the issues, and also brought up new views we had not considered ourselves. Whilst a quantitative approach could have been interesting as a supplement to cross-reference some of my findings, and reach a bigger respondents group, I do not believe that I would have been able to conduct the study on my topic using that as a method alone. Looking back at the winding road of the whole research project, let alone each interview, I would have had a very hard time establishing a solid foundation that was reflective of the circumstances out in the field without committing to the explorative and qualitative approach that I did.

When I travelled to Jinhua City, I tried my best to build on the experiences from Dipucun but found it much harder to gain trust in my interviews. In several instances, respondents displayed an overt skepticism towards the whole interview situation and the data I got often suffered. In my estimate, this derives from a series of different issues that is difficult to tell apart. My initial impression was that the city environment of Jinhua made for a more challenging scene, as people were more stressed, and there were fewer opportunities to find good spaces for discussion. However, I believe that my foreignness was perhaps the biggest obstacle to begin interviews as many people seemed hesitant to share frustrations with an outsider. Several times people tried to ignore me or made strange excuses in order to wave me off. Other times when I was able to engage in dialogue, it became clear that for them the interview was more an opportunity to defend China, and their hometown, than for me to ask questions. In addition to this, my limited interviewing skills using Chinese as a foreign language also posed a great challenge when engaging in discussion on the somewhat sensitive topic of pollution and environmental issues. Oftentimes I felt that if I had been able to present my questions more precisely, or maneuver the situation more delicately, the question of sensitivity would have been much smaller. On several occasions, interviews ended up being both uncomfortable and frustrating, as I in many instances felt unable to engage on a meaningful level and unintentionally came across as more provoking than I had wanted.

3.4 *Uncertainty mantra*

Anna Lora-Wainwright also discusses this fine line of sensitivity in China. When reviewing her field research, she brings up a concept she calls the “uncertainty mantra”, by which she wishes to describe the blurred line of the acceptable that environmental issues rests against (Lora-Wainwright, 2017, p. xx). For both Chinese themselves and observers alike, the limits for what is acceptable to discuss and talk about remain undefined, and it is often a difficult terrain to maneuver in. This problem became evident to me, as I experienced many of my respondents as more than willing to bring up frustration and dismay with pollution and the state of the environment, while others completely refused to talk, or seemed anxious and nervous to discuss this apparently very sensitive issue. This limited the amount of respondents I got in contact with, and it makes it harder to assess the value of the answers I received. On top of this, it made it very difficult to determine how to frame my questions, as the reactions vary greatly from one person to the next, as there is no common definite understanding of

what is sensitive and not. When trying to probe into issues at the borderline of sensitivity, I oftentimes ended up being too direct and only received evasive answers. On the other hand, when I attempted to be careful, I may not have asked directly enough and thereby left the matter incompletely discussed and was too wary to ask the questions I actually sought answered.

In spite of getting interesting interviews and answers in between these experiences, I believe that it harmed the diversity in my data collection and poses some issues in regard to generalizability. This partly due to the smaller and less diverse number/group of respondents, but also because it forces me to make more choices in regard to what information is most valuable. Oftentimes respondents would seemingly overly praise the positive sides of development while remaining unwilling to discuss any of the more problematic side effects. This puts more pressure on my ability to distinguish the intention behind the answers than if there had not been so many complicating factors at the outset of the interviews.

3.5 *Purposive vs. random sampling*

Doing field work in a village and in a city entails a couple of major differences. When we first arrived in Dipucun and started walking around, familiarizing ourselves with the place and surroundings we could quickly get an overview of different important aspects. Both work and social life in the village happens for a great part outside. Toddlers run around the houses and people gather outside, talking to each other and observing what is going on. Naturally, as many people in the village are still farmers, they also spend a lot of their time out in the fields, and additionally you still have many people catering to the few tourists that still come, selling snacks and souvenirs in the streets. Also people working in the shops around the village are quite visible in daily life outside as all the buildings are small and they usually work on the ground floor. In this way they also naturally blend into the social life in the village talking to neighbors and people passing by. This way of socializing, without a necessary set objective, or within closed social circles made it a lot easier both to get in touch with people, and to keep their attention. Most people are seldom in a rush, and interviews oftentimes seemed to be just as interesting for them as for me, as they were out socializing and curious to know who visited their village.

It was also helpful for my project that people in the countryside are seemingly closer connected to their surroundings and use natural sources like water in a much more varied and intimate way. People were outside washing vegetables, clothes and watering their fields which often enabled us to naturally start conversations. As the research site is also limited to a much smaller and more defined area, we quickly got a concept of both the demography, how the people related to water and, in a few instances, even of obvious problems with the local water quality. I believe this positively affected our ability to choose respondents more consciously since we already had some interesting information at the outset of our interviews. Oftentimes knowing people's profession and residence, we immediately had an idea about their relation to water and could efficiently attempt to choose a varied group of people based on sex, age and occupation within these favorable characteristics. This means that my interviews in Dipucun definitely were conducted with a purposive mindset, where we for the most part chose our respondents based on probable interest and knowledge on the subject, but simultaneously with the aim of talking to a varied group of respondents. Sacrificing the objectivity of random sampling, I believe this allowed us to most effectively gather interesting information, while still plausibly maintaining representability.

When entering the city of Jinhua, I found that I had to change my approach. I attempted to seek out people across the city, talking to a varied demographic, but far more often than not, people would appear very uninterested in talking about water, referring to their use of tap water, and that thereby there were no issues. I therefore searched out waterways and rivers on the map, and attempted to locate people with a seemingly closer relation to water. Additionally, as mentioned above, the overt hesitation to talk to me or to discuss problems regarding the pollution and development affected both my interviews and my access to respondents. It will be a greater task to sort through what information is relevant and not from my interviews in Jinhua than those from Dipucun, as the respondents showed a clearly more skeptical attitude to freely discuss the issues of my research. To some degree, I find it telling in its own sense that people deny there being any problems while at the same time avoiding the subject all together. This could perhaps say something about the awareness of there being a problem, and the continuous sensitivity of these issues. However, this apparently also contaminates a lot of the answers, and makes it difficult to obtain precise information about people's attitudes. This will demand a more rigorous approach when using such views to build an argument and will make it harder to be as decisive as I would have perhaps wanted.

And in spite of the instances where I was lucky to come across people who felt comfortable sharing their views, this issue clearly limited the amount of people that I can build my research on and thereby also the representability of my sample. This will again be important when estimating the generalizability of my data. However, I do believe that all in all, the sampling in Jinhua was reasonably random, as I had very little information about respondents before engaging in discussion and interviews, albeit with the caveat that all my responses were obtained in a specific part of the city, possibly with effects difficult to recognize.

3.6 *Case studies, generalizability and notes for afterthought*

I chose attitudes towards water quality in Dipucun and Jinhua as my two case studies because they pose tangible and approachable examples of people's relationship to pollution and clean-up projects in Zhejiang. I believe that my findings also will have value when looking at a general attitude towards environmental development in the province. This because the majority of my respondents would readily bring up other examples of pollution and discuss these parallel to the issues with water in interviews, seemingly without drawing a defining line between the different issues. Based on my research, it therefore appears that very few people attach different values to different pollution hazards. This attitude is also reflected in the many programs in Zhejiang, with for example The Beautiful Village Project with its very broad ambitions to generally improve the conditions in Zhejiang's countryside, both environmentally and aesthetically. I also believe that having chosen a village and a city in Zhejiang makes the research more applicable to the province as a whole, capturing a wider range of human experiences and attitudes.

As brought up in the introduction, I was intrigued by the perceived discrepancies in the stated, lived and observed realities of the environmental conditions in Zhejiang province. What I mean by this concretely is that there were significant gaps between the situation as described by the government and the UNEP, and how the people lived and rationalized their own lives and what I observed in research sites and corresponding sources⁴. This *relativity* that arises from the rationalized narratives in response to perceived pollution is the focus of my study. A number of quite extensive studies have already been conducted on this topic before, usually in

⁴ The sources I refer to here are a combination of government data available through monitoring applications, information from interviews with people working with pollution, and observations on research sites.

the context of when contention and activism takes place (Hansen & Liu, 2017; Li & Tilt, 2018; Lora-Wainwright, 2017)⁵. My study is particularly concerned with how people perceive environmental hazards in the wake of Zhejiang's green push over the past two decades. The developmental programs have already had great impact on industry in the province and I investigate how people relate to pollution when state authorities have already initiated an increased emphasis on pollution versus economic concerns. As the citizens of Zhejiang are not exposed to the worst pollution hazards following these programs, I believe it provides us with an opportunity to study their environmental attitudes in a more balanced context and it becomes a natural habitat to look at developmental preferences. This can prove very telling for China's pathway of continued efforts towards becoming a more environmentally conscious society, and perhaps also for the country's potential in taking increased responsibility in the shared efforts to become a green global society in the future.

3.7 *The framework structuring my inductive analysis*

As will become clear below, I have chosen an inductive approach to my study topic. Over the course of my analysis I have, in an iterative and multilayered process created three interpretative categories, which help me grasp and better understand different ways of rationalizing environmental attitudes. As mentioned in the introduction, the information concerning environmental conditions and related hazards available to people is limited and its trustworthiness often questionable at best. This in turn creates a chaotic reality to maneuver in, and leads to surprising narratives. I therefore do not see one theoretical framework as suitable to encapsulate the diversity I find in my data, but have instead opted for an inductive and inclusive approach, in which I first present my findings as structured by three categories that stem from my own in-depth interpretation of the data. I then seek to support my interpretations with insights and theories derived from existing literature that I deem applicable and enter into a dialogue with this literature. The three categories I have created for this purpose is: *Environmental culture*, *developmental attitudes* and *individualistic attitudes*, each of which I will introduce/explain in a first instance below. They will be discussed again in more detail in the next chapter which contains my main analysis.

⁵ Li and Tilt conducted a combined quantitative and qualitative study on how people in Tangshan evaluated hazards derived from air pollution and how they compared it to the importance of economic factors.

The attitudes which I recognize as *environmental culture* could be defined as attitudes that are seemingly developed against the background of Chinese history. A major part of the research done on pollution in China starts with the premise that the problems with pollution began after the death of Mao and as a direct effect of the economical developmental project initiated by the reform and opening up. However, this paradigm neglects to account for the long living tendency in China of enormous consumption of nature, with a record of serious pollution and environmental degradation extending centuries and arguably millennia back in history. The idea of this category was greatly inspired by Robert Weller's *Discovering Nature*, which is a highly ambitious attempt to rein in and define the environmental culture of China and Taiwan (Weller, 2006). Through his concept of *environmental consciousness* and relativizing of what we can understand as consideration for the environment, he argues that it is not necessarily a lack of consciousness, but rather a different emphasis that prevails in China compared to the "global (and originally western) discourses about nature for its own sake" (Weller, 2006, p. 157). Additionally Vaclav Smil has been central with his pioneering work of disclosing the environmental degradation in China before it was apparent to anyone exactly how grave the circumstances were. Already in 1984 he published his book *The Bad Earth*, which is the first substantial evaluation of China's environmental crisis. In 1993, he published his second book on the topic with the fitting title *China's Environmental Crisis*, which also greatly corroborates his findings, and provides substantial support to draw the long lines in China's history of pollution. Additionally Judith Shapiro and Bryan Tilt provide substantial insights into how these historical concepts of environmental consciousness have been translated into the 20th century and up until today (Shapiro, 2001, 2016; Tilt, 2010). With this literature as a foundation, I will attempt to explain how some of the attitudes towards nature and pollution we see in China today can be recognized also far earlier than the Reform and Opening up era, and that these traits are still relevant to understand how Chinese people relate to the environment today.

The category I have labeled *developmental attitudes* is likely the most central in my analysis. China has over the last four decades seen society transform and particularly it is the economical basis that has changed, specifically by growing 80-fold since 1978⁶ (The World Bank, 2019). This has had its effects on most of Chinese people's way of life, and it is easy to

⁶ In comparison, Norway has in the same period seen its economy increase by between 8 and 9 times, approximately the same as The United States (The World Bank, 2019).

understand a strong public belief in progress. China's economic miracle has been founded on a developmental ideology with a promise of a better and richer future (Shapiro, 2016, p. 10), which has enabled the nation to endure many incredibly tough transitions. I contend that this development imperative is an important key to also understand how people relate to and value nature. I will explain this by reflecting the answers of my respondents against the political discourse from central authorities in order to display how the development model has been shaped in the last four decades to now be closely knit together with environmental values. Lastly, I will also touch upon the theoretical framework of Environmentalism (Agrawal, 2005; Lora-Wainwright et al., 2012) to show how this developmental paradigm in turn shapes consideration for nature and involves factors outside the realm of environmentalism and environmental preservation in this process.

The last category I have constructed in order to categorize my findings is the *individualistic attitudes*. I place it last, as I believe it to very much be a product of, or at least deeply entangled/interlaced with, the two others. I argue that through the country's tumultuous modernization process, individualistic measures have become a more important mode of self-protection, where people to a larger degree see themselves as both responsible for their own health and less responsible for the community (Beck, 1992; Yan, 2010). The individualistic attitude is, as its name suggests, a self-centered relation to the environment. While we often refer to environmental dangers as a threat to communities, countries or the whole planet, it can be easy to overlook how such threats can discriminate and affect people very differently based on personal factors like income, geography, social connections etc. This category is therefore used to explain how people reduce and rationalize personal risk from environmental harm by individual abilities to protect themselves and their family from these.

4 Findings and analysis

In this section, I will present my findings and explain in more detail how I see my three categories as a useful way of understanding the respondents' answers and the larger narratives they feed into. To better understand the context environmental attitudes in China are shaped in, I will begin by laying out a short reflection on the information culture in China in general and in my research in particular. I believe it is vital to understand what information is available to people, and how they relate to it, to understand how their own narratives are created.

The information landscape in China is greatly limited by censorship, and the information which is available is often presented by the authorities, and therefore in many cases politicized and biased. This greatly affects how people relate to pollution, as it has become a central focus of the government and oftentimes a sensitive subject. Many people seem to remain rather indifferent, distancing themselves from such politicized matters and instead choosing to concern themselves with the far more tangible immediate surroundings. This however appeared far more common in remote Dipucun, than in the more urban scene of Jinhua. When we asked a farmer irrigating his fields in Dipucun what he thought about the programs implemented to battle water pollution he responded saying that was Xi, Hu and Jiang's matters, and not for him to worry about, truly reflective of the otherworldliness of China's leaders. In Jinhua on the other hand, I met a salesman who offered a far more somber outlook on the media scene:

“All the media we have access to, including television and the internet are being filtered, and a lot is censored out (..) Mostly I get information from people around me. Due to my business, my social circles are a bit more mixed, and I meet a lot of people for many different groups. They will often have their own channels of information, with different sources, and it is usually through them I get my information. If you listen to what is reported on the television, it's all sugar coated, and things seem to be all nice and fine. They won't report on anything else.” (32 year old salesman, Jinhua, 21.01.2019)

The media in China is tightly controlled by the government and there are few sources left speaking critically of the authorities. People have to find their own ways to maneuver the scarce information, and this obviously causes a great divide in interests, and oftentimes creates very personalized narratives about the current conditions. I was struck by this fact during interviews I did along the Jinhua River as well. A part of FWJT is monitoring and making information on the current water conditions in all water bodies⁷ of the province available. In Hangzhou, city authorities have launched an app called *Hangzhou river water quality* (杭州河道水质) where you can browse every river and canal section in the whole city. In the app you can find information not only about the current water quality, but also about what ambitions and challenges they face and the contact information of the river chief responsible for each particular section. Jinhua had the same information available on a web page with the same designation. However, this did not appear to be a resource people used to keep track of the local development, as most people did not know about it when asked, and no one used it as reference when explaining what their thoughts were on the current water quality. It is difficult to know why that is, but some of the reason might be explained by the skepticism towards information from the authorities displayed above. Instead, people would point to the color of the water and the fact that algae had started growing again on the river side, as a measure for the improving conditions. I was fascinated by a fisherman who confidently based the edibility of the fish they were catching on this exact premise, just as a dead fish was floating past one of the fishing lines next to him. Anna Lora-Wainwright tells a similar story, but from the opposite side, when she explains how uncertainty permeated people's attitudes towards environmental harm in one of her research sites. After a mining company had entered the village which was her field site, all the shrimps that had lived in plenty in their well had died. There were no scientific evidence to back up their worries and people were left to their own devices in estimating the risk and how they thought best to face it. Some people continued drinking the water as before, while others again dug out their own wells trying to minimize exposure (Lora-Wainwright, 2017, p. xx). It is interesting to see how people evaluate the current conditions in this landscape of uncertainty. With a lack of evidence and scientific foundation, beliefs and faith become as important as objective truth itself, and seemingly end up becoming a central factor shaping people's responses.

⁷ Rivers, canals and lakes

4.1 *Environmental culture in China*

As I explained earlier, during my field research, there were significant obstacles to finding good ways to communicate about the issues of water pollution. I was puzzled to see how differently my respondents valued nature, and what things they saw as problematic and not. People would very often portray an instrumental relation to water in the sense that they would always determine the losses and the worth of the destruction in terms of their usefulness or potential harm. When talking to people in Jinhua, one of the most common responses was that water pollution was not a problem anymore as they had gotten installed tap water, and that they now were safe from harm. I would often attempt to frame the losses in terms of nature as a value in itself, but even though we would stand right next to the Jinhua River running green, people would dismiss the issue as they were not dependent on it being cleaner. The same theme was even more evident in Dipucun, which had practically lost its groundwater following the two great national infrastructure projects running through the village. As the village head told us during our first visit to the village:

“Our groundwater was completely broken (...) First they built the highway coming through, and as they installed the columns for the bridge deep down in the ground, they struck the bedrock which caused the groundwater to float away. The same process happened with the high-speed rail, but their columns are much bigger, and after that there is no groundwater left here” (Former village head of Dipucun October 20th 2018)

In spite of the very clear description of both the former leader of the village and the cadre currently responsible for the Beautiful Village project in Dipucun, these issues did not seem to greatly affect the villager’s view of the situation. Most people would dismiss this as an issue because they already had both well water and tap water available. Others went further again and said it was a relief, that due to the lack of water they could not grow rice anymore, and would have to turn to less labor intensive crops, making their lives much easier. In general it seemed like a small price to pay for the increase in wealth and convenience they saw related to such projects.

From Vaclav Smil’s *The Bad Earth*, written in 1984, it becomes clear that the Chinese have already for a long time exploited nature to its limits in the quest for modernization and

economic development. His work confronted earlier research within the field and laid the foundation for innumerable studies after him. He criticized observers for writing uncritical and biased stories of China's environment without obtaining data on the situation, assigning this to a common *chinoiserie* attitude formed without access to the country (Smil, 1984, pp. 3-8; 1993, p. xv). With the opening up of China after Mao's death, observers could again enter the country, and there was a substantial lift in academic research. In spite of this sudden shift, one should be careful to acknowledge that while gradual changes occur over the course of such rapid developments, I will argue that certain attitudes recognized in China prior to both Mao and Deng Xiaoping's reign still persist in China today. In the following, I will select some of these traits which are also observable in my data, and discuss them on the basis of a more comprehensive review of existing studies.

It is a tremendous challenge to attempt to define Chinese environmental culture as a product of its more than 3000 years of written history, and I will be very careful in doing so, mainly relying on insights already established in scholarly literature. In broad terms we speak of Chinese culture as founded on Confucianism, Buddhism and Taoism, which all carry their own discussions on human's relation to nature. For many observers, they are, however, tied together by the concept "harmony between people and nature" (天人合一)⁸ (Tilt, 2010, p. 5; Weller, 2006, p. 21). Somewhat simplified we can say that Confucianism propagates an anthropocentric worldview (Shapiro, 2016, p. 90)⁹, but Julia Tao (2005) asserts that a more precise description would be to call it a *relational resonance with nature* (Tao, 2005, p. 69). By this she means that humans and nature are both co-existing parts of a cosmic system, in which they only in combination can achieve harmony. However only humans have morality in their behaviors and decisions, which is why the tradition is often labeled as a human-centered worldview. It is humans who must cultivate themselves and their relation to nature in order to achieve harmony and a higher level of culture (Tao, 2005).

⁸ The words "nature" itself is a central part of discussions on this topic as it is not an easily translated word in Chinese before the word *ziran* 自然 appeared in the 20th century. The most commonly used word is *tian* (天), traditionally understood as heaven, but it also appears in combination with earth as *tiandi* (天地) often understood as all aspects in the world which is not humanity. For a discussion on this see (Weller, 2006, pp. 20-23).

⁹ Robert Weller refers to Confucianism as anthropocosmic, emphasizing the mutual relationship between humanity and the cosmic order in spite of the fundamentally humanist view (Weller, 2006, p. 23).

From the outset Chinese tradition of thought and practice appear to be rather environmentally considerate. To add some nuance to this discussion, Weller brings up the central Chinese culture of *fengshui*. He points out *fengshui*'s premise of manipulating nature for human ends without the emphasis on a mutual harmonizing of humanity with nature in a broader sense (Weller, 2006, p. 26). This could possibly be somewhat telling of contradicting views, and how some traditions and trends are emphasized in one situation, and others in another. Anna L. Peterson adds to this the importance of not ascribing absolutist connections between philosophical traditions and practical behaviors (Peterson, 2001, p. 95). While culture is definitely important, and we can learn a lot from studying it, one should not forget how people "reinterpret, select, reject, and ignore some ideas" while their actions and life situations in turn create others (Peterson, 2001, p. 96). It is therefore crucial when we study such cultural heritages that we also take into account the lived experience and historical incidents, telling of the context in which such trends exists.

The 20th century brought changes to all facets of life in China, and sociologist Fei Xiaotong provides valuable reflections of the national psyche in his iconic work, *From the Soil*. His assessment of people's treatment of the water canals in Suzhou clearly portrays one of the leading views of a Chinese lack of environmental consciousness:

"I do not think there are any waterways in the world dirtier than those in Suzhou. Everything can be thrown into the canals, which even in the best of circumstances do not flow well. Filled with garbage, they flow even worse. Many families use no other toilets. [...] Why is this so? The reason is that such canals belong to the public. Once you mention something as belonging to the public, it is almost like saying that everyone can take advantage of it. [...] The problem defined by this kind of selfishness is thus actually one of how to draw the line between the group and the individual, between others and our own selves." (Fei, 1947, pp. 60-61)

Fei demonstrates the apparent lack of personal responsibilities of the individual towards the group and it is easy to also see how it can be translatable to an environmental context. He is describing a very human and individualistically centered attitude towards the surroundings, and clearly depicting nature as something for people to exploit, without much inherent value of itself. This discrepancy between traditions and action has been quite frequently referred to and written extensively on, but it remains a complicated task to define these apparently contradictory cultural traits as part of the same culture. Vaclav Smil also acknowledges such important discrepancies in Chinese environmental attitudes in his aim to disclose the dire straits of the Chinese environment in 1984. Referring to the well-known reverence of nature

in Chinese art and the protection of ancient trees and the innumerable lush parks and natural landscapes in China, he emphasizes that we cannot at the same time ignore the tremendous natural destruction that has happened in spite of such cultural inclinations. “To describe it unequivocally is impossible: what a mixture of some excellent intentions and notable achievements with much casual neglect, astonishing irresponsibility, and staggering outright destruction!” (Smil, 1984, pp. 6-8).

Robert Weller attempts to connect this gap by travelling through the millennia of history tying together important trends and influences he sees as defining for China’s current relation to its environment. By diving deep into the cultural context of nature in China, he builds a substantial empirical foundation for his analysis and he ends up at something of a middle ground. While he also recognizes the philosophical traditions pointing in the direction of an environmentally friendly and sustainable culture, he emphasizes how the divergence in actions and politics to this ideal is nothing new. The rice paddies, a cornerstone of the Chinese agrarian society, is itself an enormous human intervention with nature, and the grand canal portrays some of the unyielding willingness to literally dig into the environment (Weller, 2006, p. 48). In spite of the grandiosity of such projects throughout Chinese history, Weller contends that the worldview behind human intervention into nature changed in the 20th century (Weller, 2006, p. 48). While traditional Chinese culture, founded on a worldview encouraging man’s intervention into nature, laid the ground for a remarkably productive agriculture it also brought with it some alarming side effects like deforestation and consumption of exotic species (Weller, 2006, p. 41). However, Weller argues the truly destructive relation to nature was created with the influx of western ideas at the beginning of last century. With the introduction of post-Enlightenment ideals from Europe, China adopted a de-animated view of nature, subjugated to the ruling humanity (Weller, 2006, p. 48). Like Weller, Shapiro also postulates that it was the early 20th century’s craze for western-style modernization that bred the destructive paradigm that ruled the century (Shapiro, 2016, p. 93; Weller, 2006, p. 49). The Maoist era brought this developmentalist mode to its fullest expression with slogans like “*man must conquer nature*”! (*ren ding sheng tian* 人定胜天) and “*battling with nature is boundless joy!*” (*yu tian dou, qi le wu qiong* 与天斗, 其乐无穷) (Shapiro, 2001, p. 67; Weller, 2006, p. 49). Both Smil and Shapiro tend to blame socialism for the dire straits of the country’s environment (Weller, 2006, p. 49). And although they have received some critique for what Peter Ho calls “the tendency of some historians to sweep the

mass campaigns into one heap” (Ho, 2003, p. 40), there can be no doubt that overall, these campaigns brought great havoc on Chinese nature. There was a ruling belief that everything was possible as long as it was backed by the will of the masses, and that “humans could force nature into obedience” (Shapiro, 2001, p. 68).

Following the reform and opening up, Weller uses nature tourism as a lens to understand people’s environmental relation, contending that western environmental attitudes have further penetrated society. Through the development of bird watching communities and international ENGO’s setting up branches in the 1990’s, he argues that the first signs of nature having an inherent worth of its own appears in China (Weller, 2006, p. 70). Naturally, culture takes time to change, and it is not easy to know how substantial such influences from global communities have become in China. There are also great geographical differences in this regard, where Weller argues that the center and local, or urban and rural scene makes an important distinction (Weller, 2006, p. 155).

Although I had difficulties in finding such discernible attitudes, my research does reflect this overall argument in one similar finding in Jinhua with Wang, the leader of the ENGO, Jinhua Green Friends. He abandoned a safer and more stable career to start this organization because he saw it as more fulfilling to work for the improvement of the environment.

4.1.1 A Culture of Sacrifice

As mentioned before, it has been written quite extensively about why the Chinese let their environment and surroundings become so dirty and degraded, often with the conclusion that it seems to be a societal trait in China. Fei Xiaotong, Judith Shapiro and Vaclav Smil all claim to recognize traditional attitudes in Chinese society that make it difficult to build an environmentalist culture (Fei, 1947; Shapiro, 2001, 2016; Smil, 1984, 1993). Although, I would tend to agree that certain obstacles exist that may be found in Chinese traditions, I also found another trait, that I think stands out just as much. Quite contrary to the descriptions of Fei, telling of an apparent culture of selfishness in China, I recognized in my informants’ responses an enormous willingness to sacrifice for the national and local community. The sacrifice towards the national and local was done on the basis of two different narratives. The first one can be circumscribed as follows: We met an elderly woman in Dipucun who spoke

freely about how both the highway and high speed rail now cutting through the village on great overpassing structures had brought with them serious damage to local water quality, the relocation of houses and regular noise pollution throughout the day. Nevertheless, in spite of her having no intention of using either¹⁰, she saw it as nothing but natural that the little village of Dipucun would sacrifice such trifles for national development. Similar attitudes were expressed several times in both Dipucun and Jinhua, but she conveyed it the clearest when she coined it as “*local trifles versus big matters of the nation*” (当地小事和国家大事). I was baffled at first, struggling to understand how someone could be willing to sacrifice the foundation for their own life and health for the benefit of national development, when they could obviously not even reap the fruits from it.

Related to some of the same issues, we later talked to a village cadre in charge of the Beautiful Village project in Dipucun who explained to us how the village committee would proceed in negotiations with villagers to make them accept selling off their land for the projects implemented in the village. This was still an ongoing process following the high speed rail, the highway, and now also a parking lot that was being built at the time of the interview:

“Most straight forward we would say that we are building a beautiful village, and everyone have their share of responsibility in fulfilling it. Often we would also go further, and appeal to people’s care for “face”. If other people have already agreed to sell their land, it would be a loss of face to not follow along (...) You should not hinder the whole community in developing just for your own personal reasons, and give the cadres, village and all of us good face in allowing the project to continue”(Village Cadre in Dipucun October 20th 2018).

I believe this marks the transition between the historical category and a developmental one. Greatly simplified, the Chinese relation to the environment transformed over several stages in the 20th century. From an idea of harmony between nature and humanity, nature became perceived in increasingly instrumental terms and seen as the very engine of development. Under the Maoist era, this took on the form of a developmental paradigm where the Chinese nation with the collective effort of the masses would attack nature to create a glorious socialist future (Shapiro, 2001, p. 67). Although the development took a sharp turn after the

¹⁰ Both infrastructures were created for long distance journeys, and many of the older people we met explained that it was more convenient for them to travel along the smaller roads between the villages.

death of Mao, the paradigm of development through maximal efforts and little consideration of long-term environmental costs still carries through. And as both my and Lora-Wainwrights findings imply, this can potentially help explain that a notion of individual sacrifices are (still) part of an imagined collective effort to develop both the nation and local communities, such as a village like Dipucun. Arun Agrawal built the theoretical framework *Environmentality* (coined on Foucault's *Governmentality*) on similar processes in India, and as Lora-Wainwright quotes him: "he criticized scholars of resistance for assuming that '*the resisting subject is able to protect his or her consciousness from the colonizing effects of elite politics, dominant cultures, and hegemonic ideologies*' (Agrawal, 2005, p. 169; Lora-Wainwright et al., 2012, p. 121). He argues that the authorities in control of discourse are able to influence the way people think, affecting their priorities and indirectly leading them to make decisions that intuitively could be seen as contrary to their very own self interests. In the context of my findings, it essentially implies that in order for the people to accept the hazards and losses induced by state projects like these, they have been convinced of the superior importance of collective sacrifice for national development with shared prosperity as the end goal. The village cadre I interviewed in Dipucun shows how a similar reasoning is used in the case of local developmental projects, where it would be considered a loss of face to impede such collectively beneficial progress.

In these two examples, the attitudes expressed somewhat lend support to the continuation of local pollution. However, in fact, these views are not connected to any environmental considerations at all, but rather reflect an attitude towards development, and an expectation of the individual conforming to the grander plan of national progress. As the Chinese central government is signaling a shift in political and developmental priorities, this attitude could prove to have great significance for future developments. It might indicate that if the government would succeed in altering the overall political narrative and ensuing public ambitions towards a more environmentally sustainable future, this could meet with some willingness among the population to endure certain local consequences following such a turnaround.

4.2 *Developmental attitude*

As these last reflections have already insinuated, there is certainly a close relation between the previous category of attitudes and their potential origins and the one I will describe here, the *developmental* one. But whereas I have summarized the big lines of history culminating in trends I myself could also witness in the field, I will in this section focus on the more personal narratives, when respondents themselves used development concretely to rationalize the changes they witnessed in their localities. This was particularly done in two different ways, which both again relativized the importance of environmental issues. One way this was done was by pointing to the temporariness of such problems, lessening their significance as they were just a part of a limited time period, and something people would just have to endure until they had reached a higher level of development. The other rationale was inherent in the way respondents described how the current conditions were comparatively better, both when compared to conditions in the past, and to those of other places in the country. This allowed people to see themselves as relatively well off and people would express very optimistic attitudes based on this rationale.

4.2.1 Each day is better than the one before

I'm a rather optimistic person, and really not that panic-stricken (...). I'm of the opinion that there is no problem in this world that doesn't have its solution. It's merely a question of finding it, it's always out there somewhere (Salesman Jinhua, 21st January 2019).

"Everybody likes development. Everybody here likes to see their home village developing, and all in all I believe the positives outweigh the negatives. We all accept the consequences" (Baijiu brewer, Dipucun January 24th 2019)

Oftentimes I found statements in Dipucun and Jinhua reminiscent of Ernst Rolf's song of the interwar period, *Better and better day by day*, often used to describe the optimism of the interwar period in Scandinavia. While it on the one hand is greatly optimistic about the bright outlook of the future, it also refers to the French pharmacist, Emile Couée that in the same era recommended people to tell themselves 20 times a day that things are getting better and better. This was meant as a self-reinforcing medicine, inducing positive energy to the mind

and body and thereby actually improving people's health. I find the parallel fitting, because people did not appear to be blind to the pollution in the village, but even more so they seemed to focus on the improvements and the belief that they still had better times ahead. A 73-year-old woman who was raising pigs to supplement her retirement income expressed this developmental optimism on the mark when we asked her about the current condition: "*Each day is better than the one before!*" (一天比一天好!) She fed the pigs leaves which were only a byproduct of the sweet potato crops of the village and got nice fat pigs in return that she could either slaughter for personal consumption or sell to earn some extra cash. In addition to the money she received from the government this allowed her great leisure compared to former, much tougher times. A geography teacher that had married into the village and lived there since 1989 added on to the power of positive thinking. He first explained how the ban on domestic animals in small scale farms like those in Dipucun¹¹ had greatly impacted the general environment. When he first arrived, manure had polluted all aspects of air, water and the street environment, and comparatively he saw the slight possibility that factory pollutants could pose a threat as rather dismissible. However, he added that he also believed the ecological conditions of the area around Dipucun to be very resistant to pollution with a high regeneration rate. This was to say that if, in spite of it being unlikely, the pollution would incur any environmental damages, the effects would be short-lived and not pose a long term threat to Dipucun.

An important part of the developmental optimism was the firm belief in the inevitability of pollution as a consequence. This was usually expressed as an unquestionable imperative, well exemplified by the 32 year old salesman in Jinhua referred to above, who used the example of the G20 summit in Hangzhou in 2016 to explain the relation between economy and pollution. To him industry and environmental measures were two absolutely opposing factors, where to achieve blue skies, the government had to force all industry to halt their operations. The challenge he explained, was for the government to find the right point in time where such harsh cutbacks would be remissible. In his mind the economy was now in decline for several different reasons, and it was time to put greater emphasis on economic growth again.

¹¹ There were still some remnants of domestic animal farming in the village with many keeping a few hens or so. The pig farmer just mentioned had along with a couple others in the village gone a little further in ignoring the ban, keeping a small-scale pig shed in a back alley.

4.2.3 Developmental optimism and the power of clean streets

The balance between pollution and economy turned out to be a particularly interesting theme in Dipucun, as the central cause of their polluted water was the infrastructures running through the village, designed for national development rather than local.

If you are to become a rich nation, you have to have your transportation in order. Now we have both a high speed rail and a high way. (...) There are definitely some negative side effects. No matter how you want to do developmental projects, there will always be some negative sides to it too, but comparatively, the positive sides are much greater. (Bai Jiu Brewer, Dipucun, January 24th)

In spite of the cost appearing large from an outside perspective compared to the relatively minor economic opportunities opened by these projects for the local community, almost all of the villagers I talked to readily praised their entry into the village. Both the village head and cadre explicitly explained how there had been conducted research ahead of their construction and that the consequences had been well known. Nevertheless, national development seemed to occupy a special position, far elevated above minor concerns of water loss and pollution. The Bai Jiu brewer later added that he estimated the water pollution from these projects to have passed within a few years, and that the environmental cost therefore was not too great.

Another often repeated rational for why there no longer was a need for greater environmental efforts was how clean the streets had become. In both Dipucun and Jinhua recycling bins had been put up in all public spaces and in people's homes. In Dipucun, as part of the Beautiful Village Project, they also had a whole team of cleaning personnel who swept their way through the village twice a day all year round, leaving the ground looking suspiciously spotless. A shop owner I talked to in Jinhua, proud of the development of recent years asserted:

"Look how clean it is, you cannot see any litter in the streets. Of course, the trees will shed their leaves, and we cannot run around picking up every one as they fall to the ground, but other than that, the streets are already all clean!" (Shop owner in Jinhua, December 23rd 2018)

In spite of me asking about the water pollution, and what they thought of problems related to that, I was repeatedly reminded of the lack of litter and garbage floating around. Some of the same attitude was expressed in Dipucun too, where it seemed like many were already content with the "phase" of cleaning up, eager to emphasize that it was important not to forget about

the economy as well. This could pose an interesting predicament for continued green efforts as many of the measures already implemented were of overly superficial nature. Wang, the leader of the ENGO I talked to, saw it as one of his greatest challenges to keep people conscious of pollution in spite of such superficial improvements. While pollution prior to the Five Water Joint Treatment program in Jinhua had been out in the open, they had now started to put the wastewater in pipes, making it invisible for the public. According to Wang it was a persistent problem that factories would discard their polluted wastewaters by sending it into pipes meant for rainwater, leading it directly into the Jinhua River. With sweeping policies banning domestic animals, keeping the streets clean and moving visible wastewater into pipes, the efficiency of the program seemed tremendous to most people, although the reality probably was that far more time would be needed to make a substantial change.

Although most narratives I was met with implied that people were already quite satisfied with the status quo, and that there was no need for more environmental behavior, I found a few exceptions in Dipucun. A 65 year old man, very content with being retired in Dipucun, explained that he had travelled to many places in China, and had never seen a better place than his home village. After it was elected to take part in the Beautiful Village Project, it had become a model village leading the whole country ahead. This made him very proud, and he explained that it made villagers conscious of their environmental surroundings. An elderly woman sitting on the doorstep of her home dating back to the Qing dynasty, added on to this view. She asserted that after they had gotten cobblestone streets in the village, people had become much more conscious not to litter or spit food scraps on the ground. People were proud of their beautiful village, and with the increased influx of tourists coming as well, people wanted to portray themselves as well as possible. This could point to a potential effectiveness of such model projects, where the community becomes united over the ambition to develop a nice and clean environment that can later inspire others, showing that it is possible.

4.2.4 Tomorrow; only a day away

Anna Lora-Wainwright captures some of the attitudes when she writes that the Chinese are “dying for development”, both in the sense of yearning for it and sacrificing their health for it (Lora-Wainwright, 2013b, p. 245). The developmental paradigm stands strong in both the

urban and rural scene, and although people are not oblivious to neither the existence nor the harmful consequences of pollution, they have ended up perceiving it as inevitable (Lora-Wainwright et al., 2012, p. 115). This has in turn lead many to judge environmentalist concerns as too light, seeing conserved habitats and clean river water as necessary sacrifices for sustained developmental momentum. This can come across as old news, with Ulrich Beck already in 1992 including the inevitability of this in his theory of risk society: “*the race between perceptible wealth and imperceptible risks cannot be won by the latter*”(Beck, 1992, p. 45). Piling onto the long ruling concurrence that economic concerns always will trump those of the environment (Harris, 2005, p. 124; Milton, 1996, p. 71). Nevertheless, even though people do not want to trade economy for a clean environment, the people I talked to still believed in a green and sustainable future. Based on a developmental optimism and a belief that technology could save all our current problems, people still expressed optimistic outlooks. Hansen and Liu found similar attitudes during their research in Zhejiang, where villagers trusted technological advancements as the solution to air pollution, in order to not impede industrial growth (Hansen & Liu, 2017). It is also a question of time however, and the political scientist Paul G. Harris maintains the importance of not ending up in a catch-22 scenario of destroying the environment to save it. He argues that there must be made efforts to build from the ground up, and design an economy based sustainable development (Harris, 2006, p. 12). While Harris contends that this will have to be done by restructuring the entire economy, the developmental optimism portrayed through Ecological Civilization signals that Chinese authorities intend to achieve this by continued growth along its current path, instead with an increased dependence on technology that can solve the issues arising from pollution.

4.3 *Individualistic attitudes*

As I have so far explained, people in both my research sites were generally very satisfied with the current conditions, seeing improvements in most aspects of life. At the same time, they were not ignorant of still persistent pollution, and the possibility of certain hazards relating to it. Dipucun already had a history of successful activism against polluting industries in its vicinity, and people now expressed greater concern with declining economy than with pollution. In Jinhua, following the FWJT, there have been extensive relocation of factories moving industry away from the city, and none of my respondents expressed interest in even

harsher restrictions on pollution. The question that then arises is; what can they do to address such persistent risks? This section will detail how my respondents maneuvered the uncertainty of risks connected to pollution and how they rationalized their own ability to protect themselves from it.

As I explained at the beginning of this chapter, the information landscape in China is complex. Due to both limited and oftentimes questionable sources of information, people tend to adopt a broad variety of different views on how to relate to different issues. These issues with obtaining reliable information are reflected in the response from the salesman I quoted above. He expressed highly skeptical attitudes to all information he saw as propagated by the authorities, ending up mainly relying on firsthand information and discussions with friends and colleagues. On the other hand, the Bai Jiu brewer I talked to in Dipucun was very skeptical to information from private actors. He explained that he always went to government-run testing stations to monitor water quality as he believed that the economic incentives of meddling with test scores corrupted the reliability of private business. He also remained very skeptical about testing that had been conducted by the company that had constructed the high-speed rail passing the village, and asserted that he was going to conduct his own tests yearly until he could see for himself that the water quality had returned to acceptable levels. However, such scientific ambitions turned out to be far from the norm. In Dipucun, tradition and old customs seemed to play a far more important role. When asked about why they would wash their vegetables in the canals running through the village, and not with their well water or tap water which was considered much cleaner, people would usually explain that this was how they had always done it, adding that it was mountain water (山水) pointing to a neighboring hill. It seemed to be an everlasting truth that the weight of tradition did not invite further questioning. In Jinhua, in spite of elaborate information on water pollution having been made available online after the FWJT there was not a single respondent who referred to this as a source of information on the subject. Instead people would point to the reemerging life in Jinhua River as proof of there not being a problem with the water anymore, usually referring to algae growing along the shore or the increase in fish they were catching.

Several of the measures implemented with the GRRP and FWJT was to remove visible pollution. In Dipucun people consistently expressed their satisfaction in not having their streets covered in manure anymore, as had been the norm before animal farming had become

centralized, banning the small scale farming traditionally a the heart of such villages. This had also impacted Jinhua as they did not suffer the same problems as before with carcasses of dead farm animals floating downstream, probably due to farmers using the river as a garbage chute. Even though such measures undeniably have a great impact cleaning up the surroundings, they do also cover up the risk of other, less detectable sources of harm. Even though the manure is gone, it does not mean that industrial toxins automatically are or will be, too. The strategies to get rid of biological waste from a farm and of chemical pollution from factories are very different, but under the umbrella of environmental clean-up, people seemed to assume that toxins have been erased as well. Using traditional wisdom and techniques to evaluate modern risks, can obviously lead people to draw overly optimistic conclusions which can prove to be very harmful.

In other instances, people would appear highly skillful in dealing with the potential harm posed by water. In Dipucun all houses were connected to three different water sources, as mentioned earlier. There was a surprisingly unison agreement that only tap water was fit for drinking after it had been boiled, while well water was used for less intimate consumption like washing dishes and vegetables and canal water for non-consumption like washing clothes. The whole village seemed so adept at employing these different sources for their specific uses that they saw themselves as separated from contingent hazards and therefore framed it as a non-issue. The tap water however was not free of charge, but most people upheld that the cost was so low it was negligible when they spread out water consumption as explained above. The Bai Jiu brewer who was conducting personal tests on the water in the village had dug his own well which he had made sure contained safe water to ensure his own consumption. He framed it as a part of his Bai Jiu production that he always wanted to be sure that his product held high quality, and that he therefore was used to both doing similar tests and wanted to know that the water he used was safe for consumption.

4.3.1 Individualism and modernity

Already when developing his idea on the Risk Society, Beck declared that one of the important factors for the extended risks in post-modern society was how the embodied knowledge about and sensibility to risks did no longer apply. “Hazards in those days assaulted the nose or the eyes and were thus perceptible to the senses, while the risks of civilization

today typically *escape perception* and are localized in the sphere of *physical and chemical formulas*”(Beck, 1992, p. 21). Trading manure with invisible toxins, everything appears to be cleaner, and a developmental optimism can be sustained. Bryan Tilt and Anna Lora-Wainwright have both conducted extensive research to better understand how Chinese people in different contexts relate to information regarding pollution. Tilt has emphasized how such data is unreliable in its very nature, even if it is gathered and provided with the very best intentions. He first argues that the Ministry of Environmental Protection’s jurisdiction spans over a very broad variety of pollution and with limited funding struggles to conduct sufficient monitoring. Secondly there are great scientific challenges to determine the accumulated effects various sources of pollution have on human health. In spite of such challenges they have to set a standard for what levels of pollution that can be determined as “safe”, which Tilt describes as highly arbitrary (Tilt, 2013a, pp. 288-289; 2013b, p. 1157). Both he and Lora-Wainwright therefore explain how the senses and the embodied experience become important for people to assess the effects of pollution on their health (Lora-Wainwright, 2013a, p. 310; Tilt, 2013b, p. 1152). Lora-Wainwright argues that it is not out of ignorance that villagers do not take action against the pollution, but actually it is rather their grasp of the complexity of the issue and how difficult it would be to prove its harm scientifically that hold them back (Lora-Wainwright, 2013a, p. 311). She therefore argues that in the midst of this uncertainty they end up coming to terms with the existence of pollution and instead opt for individual measures to protect themselves (Lora-Wainwright, 2013a, p. 318).

Another part of Beck’s admonitions of the increasing risks accompanying the development of contemporary society is how they transgress the borders of time and geography (Beck, 1992, p. 22). As pollutants can be transported with water and accumulate in the soil, the risks contingent to one source can spread out to vast areas and remain harmful to people over generations. While there are continuous discussions internationally regarding the repercussions our emissions will have on the generations to come, it seemed like the developmental optimism I witnessed in my research sustained a general belief that there was no challenge time and technology could not solve. That meant that these individual measures to protect oneself were seen as temporary, and people did not appear fearful of problems going beyond their immediate understanding. This can probably be ascribed to several different reasons, and it is not hard to imagine that people are concerned with issues of today before they worry for those a generation ahead. Harris writes that people generally expect the

government to take care of environmental protection and argue that it is closely connected to the structure of politics in China (Harris, 2006, p. 9). People see the government and powerful businesses as causing the pollution, and end up being subjugated to the developmental mode and its many harmful effects. While they support the development and increased wealth this development has brought, it also feels unjustified that they should both carry the weight of the attached risk and the responsibility to clean it up again (Harris, 2006, p. 11). Tilt writes that this can be ascribed to the individualization process and the untying of peoples' relation to the state, leading them to handle such concerns as "atomized individuals" (Tilt, 2013a, p. 299). Many feel left to their own devices in tackling the issues brought upon them by pollution, and end up adopting individualized measures to protect themselves and their families, expecting the authorities to take responsibility for the substantial measures needed to clean up and pollute less. Add one sentence relating back to your research – to make it round.

5 Discussion and Conclusion

Traditionally Zhejiang has been well known for its beautiful nature, and in particular its lakes and rivers. However, as the province became a center for industry, leading ahead in the economic development of China, its once so pristine water suffered severely. Over the past 16 years the province have invested increasing efforts into reclaiming clean water again, continuing to lead ahead among Chinese provinces, now under the banner of sustainable development. In spite of these efforts having achieved some success, and even international recognition in 2018, there is little doubt within the province that pollution still persists. Within this context, I investigated how people in Zhejiang perceive and relate to hazards brought by water pollution. I believe this study has provided me with valuable insights into the process of China's turnaround aiming at becoming a more environmentally sustainable society and nation.

Through my research, I have found that the developmental paradigm that was forged through the Maoist era, and remolded by Deng Xiaoping still affects people's lives. There is a developmental optimism that sustains belief in continued progress and that time and technology can heal all wounds. This optimism obviously allows people to see current issues – in this case water pollution – as temporary, and as just another part of the struggle towards becoming a strong and wealthy nation, filled with prosperous individuals. I have shown how this developmental paradigm fits into overall pathways of Chinese history, and that the historical context and the narratives surrounding it are important to understand the motivation and rationales that fuel a continued optimism of an ever brighter future.

The Chinese individualization process has upset the relation between the individual and the state. People have become exposed to a highly complex information landscape and the lines of responsibility have become blurred. Amidst diverse hazards and uncertainty regarding the contingent risks people tend to more often opt for individualized measures to protect themselves and their families. As part of the developmental optimism people often express belief in the temporariness of these problems, and can in this way minimize the importance attached to them. Since people usually do not expect risks to accumulate and have a long term impact, they also tend to concretize the problems by focusing on those manifested in their

immediate surroundings. In combination with an expectation that the authorities will clean up the environment, this has enforced the willingness to accept certain levels of pollution as people see themselves as both free of responsibility for the pollution and protected from it.

The development in party ideology have already for more than two decades signaled a greening of Chinese politics. In most recent years this has also resulted in substantial efforts and policies emphasizing a more sustainable balance between economic development and environmental considerations. My research however indicates that public demand for economic development is still very significant. A complex picture arises. On the one hand, there have only been a few years since the government started to put more emphasis on environmental protection and pollution control following unprecedented debates about related issues in the Chinese society. Simultaneously many citizens seem to express the view that they are already relatively satisfied with these efforts and wish for a return to increased economic emphasis. As the environmental problems the country is facing will demand substantial efforts over a long period of time, not to mention the transition the whole economy will have to go through in order to curtail future emissions, this can prove to be a tough challenge. When even in wealthy Zhejiang the willingness to accept those costs appears so limited, the challenge can turn out to be even greater on the national scale. Interestingly however, I on the other hand also found a prevalent pattern of willingness to sacrifice for the sake of the national developmental project, even when the personal economic benefits were very limited. If central authorities are able to further promulgate their new and modified developmental paradigm, envisioning China as an environmentally responsible nation, this disposition to sacrifice for the greater national project can perhaps also enfold some transformative power for Chinese society.

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