

Economy-oriented and Localized Industrial Pollution: Villagers' Logic of Action Facing Industrial Pollution in a Village Southwest of China

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ABSTRACT

Based on a case study in a highly industrialized village Southwest of China, this paper analyzes villagers' logic of action facing industrial pollution. In field work, anthropological research methods, such as in-depth interview and participant observation, are employed. A main principle of not using any leading question is strictly followed, considering pollution is a sensitive issue and a leading question about pollution easily leads to a general answer. The research finds that several factors, such as villager's discourse of development and pollution, local politics, understanding of news media, specialty of health issue, influence villagers' perception and action towards the pollution they are facing with. Those factors interact and make industrial pollution an "inevitable reality". As a result, the strategy villagers make is to localize industrial pollution problem and seek for economic benefit as much as possible.

Keywords: *Industrial Pollution, Logic of Action, Localization, Southwest of China*

I. INTRODUCTION

Rapidly development of industrialization has been resulting more and more serious environmental pollution in China. Environmental pollution issues increasingly emerge, such as Songhua river pollution, Taihu Lake blue algae, lead contamination in Zijin County of Guangdong province, Chromium Waste pollution in Qujing of Yunnan,

etc. The vice director of national environmental protection bureau argued in 2005 China has come into the stage that environmental pollution is rapidly increasing. Among them, industrial pollution in rural areas is especially outstanding with the moving of industry to rural areas.

Facing with such serious industrial pollution, researches on environmental pollution in rural areas, villagers' environmental awareness and action has been growing, and usually leads to suggestions such as improving their environmental awareness, encourage villagers and community play a role in environmental protection (Wu, 2005; Chen, 2007; van Rooij, 2009; 2010; Xun, 2006; Zhu, 2000; 2001). However, there is few discussion about two very important questions, that is how villagers consider about industrial pollution and how they respond to industrial pollution. Only with understandings of the two questions, can we discuss what kind of role villagers play in environmental protection and how to encourage them to protect environment.

Therefore, with a case study on a village, Baocun, southwest of China, where has suffered various pollution from fertilizer industry for over 30 years, the purpose of this paper is to analyze what the villagers' current "environmental consciousness" is like, and how this "consciousness" was developed; at the same time to reveal how the villagers have been taking the action correspondingly to address the industrial pollution that they are facing, i.e. what the villagers' logic of action. What have been the active factors during the process from being affected by the pollution to take action (no action is also a form of action)? How have these factors been interacting with each other?

After going through a great number of cases on pollution dispute in China, Van Rooij has come to realized that health issue has always been the focus point of the citizens and is the reference point to handle environmental disputes. Therefore, he believes that health issue should be one of perspectives added into the study on environmental issue campaign (van Rooij, 2010). Accordingly, this perspective was also employed in this study to probe into the industrial pollution from the perspective of health issues.

II. Approach to study environmental awareness and behavior

There are many literatures analyzing why villagers do not show active action to protect their environment when face with industrial pollution.

Some claim that citizens are less likely to take action against firms on which they are in some way dependent. As a result, villagers who are dependent on polluting source of income are less likely to take environmental action against pollution firms (van Rooij, 2009; 2010).

Some take a more social structural perspective. With a data collected from a survey launched across China in 2003, Feng Shizheng (2007) analyzed the reasons why citizens did not take environmental protection actions when they perceived that they were exposure to environmental pollution. From the theory of “difference preface pattern”, he revealed that Chinese society with its character featuring rely on the sociability of the individuals for problem solving has been directly impacting citizens’ understanding and action for environmental issues.

In some literatures, villagers are depicted as someone lack of environmental awareness and showing irrational environmental behaviors. As Tan Qianbao and Zhong Yiping (2006) said that the farmers showed irrational environmental behaviors when placed in a polluted environment because of personal, environmental and stimulus attributions. Firstly, the farmer's personal attributions such as self-centered values system, passive group psychology, the finite nature of their cognitive ability, the lack of environmental knowledge and skills, the scarcity of information and fallacious approaches for decision-making, constituted the irrationality to make decision for environmental behavior. Secondly, the environmental attributions were those such as the impact of national policies and their implementation; the farmers’ property rights over the farmland, forest land, and other environmental resources; the lack of environmental publicity and education in rural areas; the government’s inability for behavioral intervention; and the influences of rural mode of production. Lastly, there were stimulus attributions, such as the complexity of the natural environment itself, multiplicity of the stimulus; and the hysteresis quality of the impact from the ecological destruction.

Beside discussion of non-action, some literature analyze why villagers do show environmental action. Jing Jun (2004) proposed the perspective of cultural cognition and awareness for the study on environmental action. In his study into the environmental action carried out by the villagers in the Dachuan Village in China, he found the local culture, such as that of the fertility, clan and Feng Shui, has a special meaning for the villagers’ environmental action, which has helped sharpening their awareness of ecological culture in the village.

Those works provide variety of aspects to analyze villagers’ action towards industrial pollution. However, they all share one problematic assumption, that is villagers’ environmental awareness and behaviors are all judged and discussed based on their level of compliance with what we think should be environmental friendly. This will lead to one potential problem. We may only focus on their lack for resources, shortages and limitation, which may depress us to seek for change, but fail to address attributions that are vital for turning their negative perception and action into positive ones. Thus, it may overlook the possibilities for villagers to turn from a passive attitude to a positive one, and ever denied that they could possibly take actions in favor of the

environment.

To avoid this problem, we should study villagers' own understanding of industrial pollution, how they respond it, and why they respond in this way. In another words, we should understand villagers' own perception and their logic of action, to find out how their environmental awareness formed, how they "rationalize" or "irrationalize" these environmental issues, how they take their action (no action is also one kind of action).

Studying villagers' perception and action, we should not understand rationality merely as to whether it is good or bad for the environment, nor only to consider maximizing the interests in an economic-oriented manner. Living in a particular social structure and culture, people's needs for life are multi-faceted, their actions are with a variety of purposes. Their concerns and choices are subject to and thus confined by certain social life and cultural values. Such as Nash (1968) in his article, analyzed the villagers and found there was no ever-presence interest's maximization pursuit as showed in other market economies, though they were producing and selling pottery within the Mexican peasant society. The reasons were related to their social structure, not that the lack of brains for economic calculation or motivation for money making. Pottery production has been done in such a way with family as the unit; the economic behavior was only part of the family life. The making of pottery had mainly been done by the women. While wealthy families tended to have more children, the workload for women was increase without being noticed, which further limited the expansion of pottery production capability. What's more, wealth accumulated within a household can be easily undermined for the sake of pursuing stable social stability and value system and be cut out in this social context. Social structure and cultural values as such shaped another living rational different from the one that is only for the idea of market maximization.

Therefore, when it comes to the discussion of the citizens' environmental awareness and behaviors, we should not only judge it based on their level of compliance with what we think should be the environmental reasons, but to proceed it from the citizens' living environment, their perception and concern for the environment, to find out how their environmental awareness formed and thus to "rationalize" or "irrationalize" these environmental issues. Only in this way can it benefits us identifying the internal factors that are affecting villagers' environmental awareness and behavior, and by adopting proper measures altering these internal factors to transform their awareness and behavior into environmental friendly ones.

III. Research methods

Because industrial pollution is a sensitive topic and there are always some general and simple answers to it, such as "there is pollution", "pollution is bad", etc.

Straight ask about how villagers think about the pollution they are facing with may just leads to unified answer “it is bad” but no further interesting information .Or may even bad to be evicted by those who want to protect the industry. To avoid such problem, participatory observation and non-leading questions are vital for this research. Consequently, anthropological field work methods were employed in this research, collecting qualitative research data by in-depth interview while participating and observing.

The research team launched a fieldwork lasting 6 weeks in Baocun from April to July in 2009. During the period of fieldwork, the team stayed in the homes of local villagers, observing their daily life in a participatory manner; they carried out in-depth interviews by making friends and talking with the villagers, to develop and better their understanding for the villagers and their life. This approach allowed the team to grasp various local details regarding the pollution, health and development in a relatively short period of time. These detailed information enabled the researchers to figure out the local people’s understanding on environment and their perception on pollution.

Besides, non-leading-question as a basic principle is strictly followed. Unless the villagers took the initiative to talk about local industrial pollution, otherwise the investigator must not on their own to mention or ask about industrial pollution. This strategy helps interviewees talked about their life and the pollution they are facing with in a very natural way. By talking about health problems they have been suffering from, change of their life, what they think good life is, daily encountering with industry and pollution there, the history of industrial pollution, etc, the researchers got a full picture about the role of industrial pollution play in their life, how their perception of industrial pollution is formed and changed, what they have done towards pollution and what they have considered and thought. All those help to understand villagers’ own logic of action towards industrial pollution.

During the period of fieldwork, the team paid a close attention to the background of the respondents in order to maintain a proper demographic composition for data collecting as well as made effort to interview as much villagers as possible. Studied groups were migrant workers and local villagers, men and women, the elderly and young people. For about 100 interview cases, the lengths of talking varied, forms diverse and the amount of information differed. It was not easy for the researchers to quantify the data collected in these areas, but by the fieldwork featuring qualitative data collecting, the researchers gained invaluable first-hand data for more in-depth understanding of the impact exerted by industrial pollution on the locals and how they perceived and coped with it.

IV. Baocun, a Village with Highlighted Social Differentiation under the Influence of Industrialization

Baocun is an administrative village not far from one provincial capital city located in Southwestern China. Within an area where the phosphates resources are abundant, Baocun has been one of birthplaces for the province's industries. Since the founding of new China, the Baocun region has been regarded as an important base for industrial development. For the last three decades, the Baocun has gradually become a highly industrialized village from a traditional agricultural village, where a rural society used to maintain more homogeneous has gone through a process of differentiation. The most visible manifestation of this differentiation could be found in its landscape. Its landscape gradually changed from predominantly agriculture in the past to the more diverse landscape of industrialized world.

Prior to the establishment of the fertilizer plant, in the Baocun there were only scenes like mountains and water, land and cottages, a small market where the villagers went to on a regular or an irregular basis. Like many other local rural communities, it seemed as if the whole village belonged to the same world, the way of life that the villagers had been the same.

However, in about twenty years after the fertilizer plant was set up, the landscape of the Baocun were gradually changed. The used "single world" turned into a "triple universe" with diversities and varieties.

Extension of the fertilizer plant went to the relatively flat area next to the roads. There were one-story houses either in an orderly or randomly manner around the plant, where a decent amount of float population came to work in the fertilizer plant and stayed here. There were some of the houses by the roads of the factory, as if they were factory buildings. Others were set up along the winding narrow alleys. Sizes of these houses here been varied from a few square meters to more than ten square meters, the monthly rent ranging from some RMB 50 to 80 Yuan, and the number of people inside differed from 1 to 4, could include the workers themselves or their family members. They regarded the area where they live as "slums". The "slums" was closely attached to the plant, often a time the air was filled with dust and other pungent smell, and sewage and dirty water of various sorts flowed all over the place.

On the other side of the road, within a range of one to three kilometers from the factory were the houses of the local villagers and their community. In recent years, quite some multi-story buildings were added to the village, accompanied of which were new faces that the villagers did not know. Most of them were of the floating community came to work in the fertilizer plant or neighboring mines. Many of them were renting the old houses that the villagers no longer lived in, paying a monthly rate of RMB

50-80 Yuan for a small place merely over a few square meters. The market within the village started to boom as more and more people gathered here. Other than those shops for groceries and snacks that could be commonly seen in the past, there appeared in the market these new “stores” that could not be easily found before - Mahjong, Chess and Card Rooms. In a small market as such, there were three Mahjong, Chess and Card Rooms. These three places would be packed with the local villagers came and hangout for recreational purposes after lunch. It would last till evening when the people had to go to bed. What seemingly inconsistent with the beauty of small buildings and the bustling of the market was the fuzzy windows of the storied houses and the dusty trees round about the village, as well as the pungent smell of chemicals in the air from time to time and those black or yellow stuff in ditches.

On the other side of village opposite to the road was a railway, still farther a little hillside. The residential area of the fertilizer plant was situated on the hillside of upwind direction. It was here that the buildings were lined up neatly, the garden kept lush, leaves green, ponds clear and the public square spacious. All other domestic installations, such as supermarkets, post offices, banks, schools and community hospitals were readily available. Beyond that, the air-conditioned bus took the workers commute between the factory and the residential area; public transportations were available for people to go to the capital city, multiple times a day. All these allowed people stay and work here and commute to the City and do not necessarily have to have much to do with village down the hillside. The life was so ease that you would not feel like living in a rural area at all.

As a result, the road and railway divide the village which used to be one single world into three universes: slum around the factory, residential area most villagers live, residential area for workers in fertilizer plant. Slum around the factory is very dirty, lived poor and migrant workers. Residential area villagers live is relatively clean and rich. That for workers in fertilizer plant live is quite clean, beautiful and city-like.



Figure 1: Location of slum, village, and factory

The fact that these three “worlds” could coexist in a rural area owed much to the enter-in of the fertilizer plant. In a period of twenty years, due to the fertilizer plant not only the locals were brought with more job opportunities, a large number of floating population, prosperous market, beautiful buildings, but also there shaped a new social and living environment, brought the changes into the local people’s living environment and certain aspect of their lifestyles, formed distinct differentiated social groups.

Like its sandwiched geographical position, the living condition of the local villagers was not as good as senior staff in the fertilizer plant, but much better than the local migrant population. They were the middle groups. Their living conditions, better (well-off) or worse (sickness), were directly and closely tied to the presence of the

fertilizer plant. Those who were the registered residents of Baocun enjoyed an “annual dividends” (from mine contracting fees, land expropriation fees, pollution subsidy, bonus from small business issued for holidays and compensation for accidental pollution incidents etc), besides the conveniences like job opportunities of working in the fertilizer plant, as well as more business opportunities, increased rental incomes and better infrastructural facilities as more people flowed in. However, the villagers at the Baocun also had to suffer from many problems, such as a variety of diseases, waters that no longer clear nor sweet, and the air with a pungent smell from time to time, and the dust all over the places and so on. V. Main Findings

(A) Health Consciousness and Perception of Pollution

Baocun villagers show great concern of health problem and environment pollution, as well as the relation between the two in their daily life. Among interviews, several health problems always be mentioned as the influence of industrial pollution by villagers and local doctor.

The health problem mentioned the most is rhinitis. Some villagers interviewed even claimed 90% villagers suffer from rhinitis and they heard from doctors that since they live there (Baocun), it is quite common for them to have this problem.

The second problem mentioned most by villagers and local doctors is bronchitis. Most of respondents said they were vulnerable to cold, and could easily develop into bronchitis. Local doctors also claim Most of the village respondents said they were vulnerable to cold, and could easily developed into bronchitis is very common for local villagers, especially for the elder.

The third problems mentioned most is aching of hands and feet. Not only the elder claimed to suffer from that, but also many of villagers in their thirties reported the same problem. They relate this to industrial pollution there because they found in past years their buffalos also suffered from the same problem, which make buffalos not able to work anymore and gradually died. And that is why they haven't had buffalos for many years.

Nosebleed easily, skin problem and bad teeth are also claimed to be related to the pollution. Migrant workers and villagers who used to work in fertilizer factory and exposure to the raw material in the production cycle usually got this problem. However, as claimed the primary school students are also inclined to have. Acne and pimple were mentioned by female local villagers most. They claimed they got poorer skins compared to the non-native. Their skins looked pale and were with acnes and pimples. So the kids are. The local kids generally got poorer skins and more spots comparing to their peers elsewhere. Besides skin problem, the local kids also generally have teeth problem. Teeth of the kids appeared yellow and poorly aligned. Some villagers and the village

doctors said that the villagers over 20-year-old got good teeth, but not so much of those who were younger.

Besides those small health problems, some villagers also reported cancer that may be related to the pollution. They claimed either their family members or other person in the village had had cancer and died from that. A veteran worker retired from the fertilizer plant was able to name several cancers like rectal cancer, anal cancer, lung cancer, stomach cancer and uterine cancer etc. and the name of seven people that were died of cancers without gave much thought about it.

There were other health issues that not many villagers addressed, but brought up by the village doctors and a few villagers, such as short life span and decreased fertility.

While talking about these health problems, especially why so many villagers got these problems, most of the villagers commented by saying “pollution here is serious”, reckoning these problems had something to do with pollutions. If villagers had experience working in the factory and suffered certain problems when working but got better after quitting the job, or have comparison to someone with similar diseases, or heard comments on the diseases common on their village by doctors, they will comment such health-pollution relation with a more affirmative tone.

After reporting those health problems, villagers mentioned the pollution from several aspects they are encountering.

First of all, water pollution. There was always a thick layer of white scale attached on the kettle that the villagers used to boil water. It always came back just a few days after being washed. In addition, because the irrigation channels of the village and the drainage pipes of some plants were connected, the industrial effluents from the factories would flow into the villagers’ fields along the channels. In the village, a layer of thick black mud ended up piling up in the ditches of the fields. There were times when the effluent treatment equipments in the factories went wrong, the waste water was discharged without being treated, certain industrial accidents happened, or the waste water flowed in was high acid contented, then food crops in the fields of the villagers would be burned to death or the yield be cut.

Secondly, Dust problem. As described in section IV, the Village was very near to the factory, and sandwiched between the trunk roads and railway for transportation. There was heavy traffic on the road every day with cars loaded raw materials or finished fertilizer products. As the surface of the road had not been hardened, it’s quite dusty all over the places when the vehicles passed by. Because the office building of the villager groups was closer to the road, the glasses windows that used to be clean and

transparent were covered with dust and difficult to wash, turning into like frosted glasses.

Thirdly, Smog (air) problem. The Village was located at the downwind direction of the factory, various smells came out of the factory chimneys would spread to the village from time to time. It got worse in the evening when the smell got stranger, sometimes it's so bad that one can hardly breathe, and the villagers called this feeling as "pungent". Several times when the smoke was too bad, the wheat and corn in the fields of the villagers were smoked yellow, and were not able to grow up further.

In addition to water, dust and smog said above, the villagers also mentioned the rice grown here have become different from those of the past since the set up of the fertilizer plant. The local rice used to be one of the most popular items among the villages nearby, but later no one wanted buy rice grown in the village. The reason was that the rice from paddy fields of the Village was no longer all white, but mixed with some black ones in it. Besides the problems of the rice, the villagers also shared that the cabbage grown from the ground would turn to have a carrot-like sharp, namely the cabbage leaves did not grow much upwards, while the roots developed well downwards. As a result, the leaves on the upper part were small and thin but with a big root.

Seeing from villagers' description and arguments villagers do realize the environment problems they face with and health problems that are led by environment pollutions. They are not lack of knowledge of pollution or negative effect of pollution. They understand the seriousness of pollution and related health impacts.

(B) Reaction to the Industrial Pollution

From the very beginning of realizing the environment pollution, villagers have been taking a wide variety of ways to respond and resist to the pollution problems. As early as 1980s when the fertilizer plants was initially set up, villagers led by leaders of the village committee wrote a letter collectively to the township government concerning the pollution problem they faced. However, due to reasons unknown to the villagers, there is no any answer to the letter except that the village committee received a truck of gift from the factory leaders. And the pollution problem left unsettled.

With reasons unknown for us¹, it was probably from the 1990s that the village began to receive from the factory amount of RMB 66,000 Yuan a year as pollution fee. Of course, the names of which was not put as "pollution compensation fee", but as "agricultural compensation fee". Ever since the establishment of the fertilizer plant, accidents of various sorts and sizes never ceased from happening, such as raw materials warehouse leaking, exhaust gases leakage, sulfuric acid tanks explosion, and waste

water leaking and so on. In response to these accidents, the villagers held all kinds of protests, such as blocking the factory gate or the transporting railway, asking for relocation, claiming for compensation etc. Gradually, a circle was formed: should there any accidents occurred and threatened the villagers, they would organize themselves to block the gate and ask the fertilizer plant to deal with it. As a result, the fertilizer plant would compensate the villagers economically to a certain extent. Then the protest was over until next accident occurred.

In these protests, there were several features stood out: 1, Compensation was for the losses of crops mainly with very little for health impacts, if there was any; 2, Main action taken was to block the factory gate, seldom did they report the issues to higher level government offices or environmental protection authority, nor had them exposed the problems in the media; 3, Each action was ended after being compensated economically in a certain extent, while questions like how to reduce pollution substantially was not given any attention; 4, After serious accidents, villagers' protests tended to be persuaded from not to be carried out by the village leaders.

In tracing these specific protests by the villagers, we found that the formation of the characteristics of their actions was subject to several factors, such as the particularity of a series of health problems, local politics, villagers' discourse of development and pollution and the understanding of the news media. These factors interacted with each other, and shaped the villagers' specific logic of action in response to the pollutions.

(C) Factors framing the logic of action to pollution for villagers

1. The Specialty of Health Issues

From what we've been discussed, the impact of pollution that the villagers felt was not only from the changes in the environment or damages to the crops, but also the effects posted to their health by the pollution. However, how come most appeals expressed by actions were limited to compensation for crops, and protest always end up with certain economic compensation?

This, at least, has a direct connection with the specialty of health issues.

First, the relationship between pollution and health problems is ambiguous, and cannot be supported by proper scientific evidences. As being introduced in the section of (A) that the villagers had been aware of the unusual health problems, thought they might have a lot to do with the pollution from the fertilizer plants. But there are no scientific evidences to support the correlation between pollution and diseases, and it's difficult to define what level of health problems were caused by pollution. Therefore the

villagers were rather cautious when they were to attribute the health problems to pollution. For example, a young mother when asked the cause of rhinitis said, “The rhinitis, the fertilizer plant is really poisonous.” Later on when issues like air pollution, bad air and rhinitis as the consequences of the fertilizer plant were brought up, the interviewer concluded by asking, “So you think there are pros and cons to have a fertilizer plant here, and one of cons is that people become to have rhinitis?” She quickly corrected and said “no, I mean the downside is that it brought pollution, but not that it made people have the rhinitis. I have no idea how people got it. It won’t be good if you said to others that I told you the fertilizer plant made people got the rhinitis. Well, how should I put it, their life would be difficult if they were not working in the factory...” (30yearold, female, interviewed on May 20)

Since they don’t have the evidence to support, they were unsure in consultation with the fertilizer plant on compensation for health problems or their requests about health were easily rejected. Villagers recalled a few of actions in which they had asked for health-related compensations, like the fertilizer plant should carry out physical examination for them, grant them monthly health subsidies or favorable treatment in the hospital of the fertilizer plants or other medical health-related compensation benefits. Nonetheless the villagers had nowhere to turn when the fertilizer plant answered with wordings like “go ahead and check. We will be responsible for it, if found that we were to be blamed for it.” The villagers themselves said they seldom propose health related requirements now.

Secondly, the rightness of physical examination and its effectiveness to enhance health were questioned. On several occasions the villagers had proposed to let the fertilizer plant carry out physical examination for them or to compensate accordingly, but were rejected by the fertilizer plant. Over time, the villagers also came to doubt the feasibility of physical examination thought “Where can I go for medical treatment after the health examination? I have to pay after all (57yearold, female, interviewed on May 16)”, “Being examined, (if) found any things wrong and I have to go to the hospital, who can afford to do that? (57yearold, female, interviewed on May 19)” Meanwhile, the villagers have doubts for the creditability of the check-up results. It is held that the doctors would not necessarily tell you the real results from the medical examination, that the doctors might falsify the results in order to ask the villagers to go to that hospital for further check or to buy medicine.

So now as for questions about health examination, many villagers have said it’s not something they would ask for, believing that it’s not going to be solved practically if brought up. They rather shifted the attention to the loss of crops caused by the pollution², so the compensation has been economic compensation for crop losses which can be easily identified, calculate and get compensated.

2. Local Politics

The adoption of the villagers' action approaches, naming blocking the factory gate after accidents and end up with economic compensation with the mediator of village leader, were impacted by local politics, which means power structure among villagers, local authority and the factory that built purposely by the local authority and the factory.

According to the villagers, the first action against pollution from the fertilizer plant dated back to 1980s when it was just built, as they recalled. Led by the village leaders, all of the villagers came together and wrote an appeal letter. All signed their names, they presented the letter to the government of higher level, stating that the fertilizer plant did not care about the villagers, and violated the interests of the villagers. It was done by the village leaders acting in their capability, and all the villagers participated in an action that was in line with government's appealing procedures. However, the results from that action were not what the villagers expected to see. Only did the committee members got benefits from the factory but nothing related to the pollution problem changed for villagers.

After that, in a few cases where the villagers could recall, we never see petition conducted in this way. The village committee leaders who used to act in the forefront had become a third party between the fertilizer plant and the villagers, and acted as a necessary coordinator. And for villagers, another approach was adopted, where the villagers would go to the factory leaders or office stuff and ask for the solutions if any accidents happened and affected them, while village leaders will come to mediate between villagers and factory to help resolve the conflict.

The role of mediator of village leader by one hand is purposefully built by village leader and by another hand is reinforced by the attitude of factory. It was recalled by the villagers that they were scolded back by the village leaders once when they were thinking of going to the fertilizer plant and negotiate on their own. They said, "You are not allowed to go to them directly, only we can talk to them". (32yearold, male, interviewed on May 12) There was another case recalled: when the wastewater from the fertilizer plant was discharged into the irrigation channels without being treated, the crops of many villagers were burned to death. The villagers organized themselves to the fertilizer plant, but the staff ignored them and said, "We only talk to the leaders (village leader), not you villagers". Later on the fertilizer plants took more strict measures to secure the gate, not allowing the villagers get close to the factory area. Then villagers couldn't get close to the leaders, let alone having the problems solved by negotiations. As a result, villagers have to rely on village leaders to negotiate for them.

And every time after the village leaders stepped in to work on the consultation

with the fertilizer plant, the villagers would always get some economical compensation. It also made the villagers began to understand the pollution problems faced would not be handled by their own strength, that they had to rely on the village leaders and came to believe that the “(Problems can) be dealt with effectively only if done between organization and organization” (57yearold, female, interviewed on May 16).

However, the village leaders and fertilizer plant have close economic ties. With support from the fertilizer plant, the village committee set up a labor service company. All migrant workers came into the fertilizer plant were recruited and got paid through the company. Leaders of the company were the village leadership. Therefore, there were close economic ties and interests relationship between the fertilizer plant and village leaders. Relationship of such kind made the villagers cast doubts on the village leaders’ role as a third party in coordinating the relationship between the villagers and are more pessimistic on the interests they can get from their action. Just like what has been said by the villagers “The government officials are there, what you can do? Nothing can be done. They are suppressing (us). As officials, they can benefit from this. That’s their job. How could they possibly ruin their jobs, certainly not, right?” (33 year old, female, interviewed on May 10)

There might be someone thought that one of the most common ways for the villagers to make known and get the pollution problems solved is to expose it in the media. Why villagers from the Baocun did not bypass the leaders and directly reveal the pollution problems they were facing to the government and public, and thereby get the attention and solve the problem? We found there were two issues involved here in our interviews. The first one is about the villagers’ understanding of the relationship between the fertilizer plant and their life, as well as for the development. How do the villagers look at the source of pollution after all? Secondly, what’s their perception on media exposure? Further analysis for these two points is coming in follow passages.

3. Villager’s Discourse of Development and Pollution

We found an interesting phenomenon from several actions done by the villagers, it seems as if they limited their actions to a certain extent intentionally, and that the fertilizer plant would not be got into troubles that were too serious. There was an explosion occurred in the fertilizer plant in the middle of the night once, the windows of some villagers’ were damaged from shaken, many villagers were frightened. As the villagers organized themselves to block fertilizer plant gate in order to ask for explanations, they were persuaded back by village leaders with a few words “They had such a big thing happened to them, several workers dead, their wives and children are going there to the factory gate. You guys don’t go now; let’s wait after this then takes our time to deal with it.” (66yearold, female, interviewed on May 14) In the end, the damage problem was left unsettled instead of being dealt with.

In situation like this, other than the authority of the village leaders, the love-hate understanding the villagers had for the fertilizer plant also played an important role. We know the facts that since fertilizer plant settled in the Baocun has transformed into a non-traditional agricultural village with abundant material resources and convenient life. Not only has the fertilizer plant provided the villagers with jobs, sources of livelihood, but also presented to them a “modernized” lifestyle. There have been beautiful buildings erected one block after another in the village, most of the villagers are no longer engaged in agricultural activities, but turning to practice small businesses and working in the factory. They do not have to labor in the fields with face towards to the ground and back to the sky, but can go to a boisterous Chess & Card Room playing cards or Mahjong. During the interviews, conditions like “economic situation is getting better”, “new houses built” have been cited by the villagers as development and good life. Most of the villagers we interviewed believe that the development of the village was brought by the fertilizer plant, that if without the fertilizer plant, there would have been no current development in the village.

Furthermore, the sharp contrast in living conditions between the local villagers and the migrant workers further manifested the important role that the presence of factories like fertilizer plant could play for economic development. Most of the migrant workers came from areas of their provinces with difficulties like scarce natural resources, absence of industries and of poverty-stricken phenomenon, were mainly engaged in the jobs greatly exposures to toxic and hazardous substances in the fertilizer plant. They were aware of how much harm the works could have done to their health, but still chose to stay in the Baocun because they were secured with better income and more convenient life here.

So while many of the villagers did talk about the pollution problems because of the fertilizer plant and the impacts exerted on their life and so on, there also were phrases somewhere in their sentences emphasizing “There are good and bad (sides of it).” “...The harmful side is that there are pollutions, the benefit is your life won’t be misery as you can depend on the factory. See, why are those who live in the mountains coming out to work here, why come to factory. If only by farming, you couldn’t get much out of it...” (30 year old female, interviewed on May 20)

In a word, the villagers had their own calculation when taking action to protest against the pollution from the fertilizer plant. While fighting for compensation on the one hand, yet they would not take actions that were so drastic that could possibly get the fertilizer plant into a big difficult situation on the other. Development, which means better economic situation, abundant facility for life, is what they are after. The thing is that the development in their mind only came after the economic advancement as the factory set up. There would be pollution as long as there was a factory, hence pollution and development supplemented and complemented each other.

Their understanding was related to the understanding for the approaches to solve the pollutions. We found from the interviews there were polarized understandings for the pollution problems. They held that there would be pollution so long there existed any chemical plants and in order to have the pollution solved, the solution would appear to be relocating the fertilizer plant or the villagers.

They do not seem to give any thoughts as how to let the fertilizer plants exist and at the same time minimize the pollution so as to not affect their lives. For example, when we asked them have the air quality gotten better these years, the villagers said “It seems to me a little better now, it (air) was suffocated even just sat by the door ... I have no idea, maybe it’s because the workers got the machine proper managed... this is the business of the officials.” (57yearold, female, interviewed on May 16)

Besides holding the view that their life was closely related to the development of the fertilizer plant, the villagers’ understanding for national development also made them feel powerless when taking actions. Such as “How can we ordinary people fight with such a big company, furthermore the government has put great efforts to develop industry right now.” (30yearold, male, interviewed on 29 April) “They indeed got big on taxes and profits, if they failed, where can the government go to collect taxes? They all have interests in the case. It’s so simple yet true, to sacrifice individuals for the sake of the collective. This is but a sacrifice of a village”. (32yearold, male, interviewed on May 12)

It is therefore clear that the villagers believed that the industry was an important strategy for national development as well as better life for them, and the industrial pollution they were facing was a by-product along the path to develop. Moreover, the villagers could not prove how the pollution had affected their health, or how serious that was. What they could identify was the impact on crops, of which the fertilizer plant had made the corresponding compensation. And growing crops itself does not really provide better life desired for the villagers. So they might accept what has been going on, though there were pollutions, uncertain impacts on their lives, still they were treated with better economic conditions and living conditions. As result, it’s not possible for them to take drastic actions or those that could exceed the bearing capacity of the fertilizer plant.

4. Understanding of News Media

It's not difficult to guess through the above analysis why the news media exposure was not adopted as one of means of action to deal with pollution. Let’s put aside villagers’ doubt as whether the news media would work in this problem, “(it’s) not like what’s in the TV. The problem gonna be solved once you expose it in the media, it doesn’t work...they got big on taxes and profits, there is no way you could win the case

against them.” (32 year old male, interviewed on May 12) Let’s ignore some of the failed attempts by individual villagers where there had villagers made anonymous phone calls to the reporters disclosing the pollution problems in the village, but the reporters were rejected when they tried to call back and contact the village leaders by abrupt answers like “go to ask whoever told you these questions.” (32yearold, male, interviewed on May 12) Then, that’s the end of the appealing. Speaking purely about media exposure, it would mean that the environmental protection authorities will step in the dealing of pollution of the fertilizer plant, but it’s not possible to substantially reduce pollution in villagers’ mind. The most likely result would be economic penalty. Whereas, this meets none of the expectations that the villagers could possibly have. What a village leader said best illustrate this concern, “instead of let villagers appeal this way (by talking to a reporter) and get the factory fined by the environmental protection authority, it’s better that plant can keep that money for the villagers”. (30yearold, male, interviewed on May 12)

It’s therefore to certain extent due to the interweave of several factors, such as specialty of health issue, the structure of local politics, their perception and understandings for development and pollution, understanding of news media, that the villagers tended to approach the pollution problems by localize industrial pollution problem and seek for economic benefit as much as possible. That means: as for the area of action goes, villagers just take action within village boundary but not go beyond, not sue to next level of government departments or step into the spotlight of media. They just try to solve the pollution problem with the fertilizer plant (or better say get as much compensation as possible from the factory) by the help of the local village leaders. Speaking of the means of actions, only in one way, that’s to block roads or gates then get compensation for the pollution they suffered from, which they think is effective locally and benefiting the villagers most. In terms of intensity of the action, they never take drastic actions or those that could exceed the bearing capacity of the fertilizer plant so as not to put the plant to a dead end. As for the expectations and results, as long as compensation economically granted, protests from the villagers would cease.

VI. Conclusion

The research on the Baocun provides us a perspective from the inside out, namely to examine their health awareness, perception of pollutions and actions taken from the perspective of the villagers. The research on the Baocun revealed the struggles and powerlessness as the villagers were to face the pollutions, their seemingly should be criticized “blocking - compensation” action. It’s not that they were without environmental awareness; they have perceived the problems faced, and how they and their families have been affected. They were not the folks who are only after economic interests even at the expenses of their own health. In fact, they have not stopped the resistance and fighting since 1980s, only that the hindrance they faced when fighting for

a clean environment and for their health rights was the whole system that they came to believe that did not seem likely to be turn around: at the macro-level as social development environment, at the micro-level as sources of livelihood, local politics, and the specialty of health issues.

While in the face of the system that acted as an obstacle for the villagers to claim their right for a clean environment and health, the approach adopted by them was that they could manage under this system - to block the roads, then seek for economic compensation as much as possible in a localized manner.

In this case, if conducting environmental education, yet simply presuming the villagers were lack of awareness of environmental hazards, not only it would fail to achieve the desired effects, but also lost the support from the villagers. However, if just emphasizing the village's role in environmental protection and giving them more responsibilities, it would simply undermine the efforts or even be taken advantage of by the villagers as an excuse to seek for more economic compensation rather than as a tool to protect the environment.

Of course, it's still possible to raise their awareness on environmental protection and enhance their environmental protection actions. The hindrance system in front of the villagers is not necessarily unbreakable. We ought to emphasize on the positive role the villagers can play to break the system. In fact villagers concern about the environment, their health and life at all time. It's better to start from the villagers' daily life, improving their perception for the seriousness of the pollution problems. They have had feelings and speculation for health problems caused by pollution, and what's lack are sufficient evidences. The pollution hazard has been perceived, only that those specific hazards are uncertain. So, what we need to do in the first place is to provide conclusive evidence of pollution hazards in order to deepen their understanding for these pollution hazards.

What's more, the grass-roots democratic election has also provided a way to change local politics. Since 2000, the elections of village committee and villager groups have been very intense and therefore make the vote of the villagers especially valuable. It's been said by the villagers that although election frauds are common in each election, while for the purpose of winning the votes as many as possible the village committee of each term has been given thoughts to the villagers, concern for the interests of some villagers. So by helping the villagers improving the level of awareness of pollution hazards, raising their health concerns, letting the committee candidates bring their concerns into the consultation with the fertilizer plant may help bettering the environment issues.

Last but not the least, the government and the public should pay more attention to environmental issues: to create a sound atmosphere for environmental protection in

the community; to emphasis on environmental protection in relevant policies; set up environmental protection index for enterprises involved in the toxic and hazardous items and; to include the impact on the surrounding residents into the environment and operational performance indicators of an enterprise. Although “Sustainable development” has been talked about for many years, we came to know that this saying was not acknowledged at all by neither villagers nor their leaders as we investigated on these issues. There were even leaders who never heard of the concept “sustainable development”. While the villagers also believed that there is no third way for the industrial enterprise to exist yet have a clean environment, you have to choose either industrial development or environmental protection. So this also indicated that our advocacy and emphasis for sustainable development is far away from being enough, strengthening is still needed.

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¹ None of villagers we interviewed was able to tell the reason why they got the money and what resulted in it.

² In a summer seminar of the Forum on Health, Environment and Development held by the Social Science Research Council (SSRC) at Kunming, Yunnan Province in August 2009, Anna Lora-Wainwright gave her analysis and comments as to why the villagers focused on the pollution's effects on crops, instead of on health. Three main approaches to understand this issue: 1, it's easier to proof to the plant of the impact of pollution on crops; 2, it's easier to compensate for crop damages; 3, it is because the compensation for the villagers has been predominantly on crop damages caused by pollution, that the villagers were more interested and concerned in this regard. Please refer to the PPT file "anthropological approaches to the understanding of environmental health risk incentives and its contribution to more effective response to them".