Chapter 2

Public Involvement in Environmental Issues in China and Its Practice in the Tai Lake Basin

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1. Background of Public Involvement

Social conflict provoked by environmental pollution

Environmental pollution has only been recognized during the past 10 years in China, even though pollution has been intensifying due to economic development over the past 30 years. Not only the environment but also human life has been sacrificed for the sake of increasing economic wealth. China has reached the point at which conflicts are erupting from its pollution problems. In 2007, there were 462 environmental pollution accidents resulting in the direct loss of over RMB30 million, and it is impossible to calculate and evaluate the ecological losses and long-term impact. Following the environment accidents, more and more people were sacrificed to pollution. Environmental problems have escalated into factors that disrupt social harmony. In 2005, there were 51,000 environmental conflicts and over 600,000 appeals, and the increasing speed kept on 30% at that time. It is understood by researchers as well as by the government that there is an urgent need to control the increase in conflicts.

Activity evolution of public involvement in the environmental protection

Derived from environmental impact assessment (EIA) policy, public involvement in environmental issues in China was introduced by the World Bank and Asian Development Bank. Later, public involvement was written into the 'Law on Environmental Impact Assessment'. In 2004, the protest activities against construction of hydropower plants along Nujiang River brought environmental NGOs to the attention of the public and awoke the consciousness of the public. In 2005, there was another

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¹ China's Environment Statistic Communiqué 2007.

http://www.mep.gov.cn/gkml/hbb/qt/200910/t20091030 180621.htm

famous event called the 'Yuanming Garden Affair' in which the public and researchers successfully halted a construction project by utilizing the power of the media, the law, and public hearings. This event also led to a new regulation concerning public participation in EIAs.

According to an NGO report, as of the end of 2005, there were 2,768 NGOs in China. However, of these, 1,382 were operated by the government or a related organization, 1,116 were operated at universities or colleges, 68 were operated by branches of foreign organization in China, and only 202 were operated by citizens. In a similar study in October 2008, there were 3,539 NGOs in all. The number operated by the government decreased to 1,309; those at universities increased to 1,382; foreign-operated NGOs increased to 90; and grass-roots NGOs more than doubled, to 508. Not only did the number increase dramatically, but the rise in their activities and influence was also remarkable. In response, the Ministry of Environmental Protection released new guidelines for better managing the development of NGOs and public participation entitled 'Guidelines for Well-Organized Development of Social Organizations'.¹

Gap between the public demand and public activities

According to an investigation by the China Environment Culture Promotion Association in 2006, although environmental issues have received much more attention in recent years, there is little real participation from the public. The public's opportunities for participation have been insufficient. For example, only 6.3% of the public had attended environmental protection activities within three months of the investigation. Only 20% of the public knew the hotline number of "12369" at that time, and 40% of the public did not know how to become involved in environmental protection. In the same study, the most popular social problem was environmental pollution, which was chosen by 34% of respondents. Compared with the previous data, we found that, although the public pays significant attention to environmental issues, they still lack opportunities and the motivation to participate.

http://www.mep.gov.cn/gkml/hbb/bwj/201101/t20110128_200347.htm

2. Public Involvement in Environmental Issues in China

2.1 Institutional Support

Principle legal basis for public involvement

Article 26 of the Constitution declares, 'The state protects and improves the environment in which people live and the ecological environment. It prevents and controls pollution and other public hazards', thereby enshrining environmental protection as national principle. In Articles 2, 35 and 41, the public's right to participate in the management of the country is recognized.

Public participation in the environmental legal system

Dr. Qu, one of the most famous environmental experts in China, defined the basic concern of environmental protection law as follows: the overall relationship of stakeholders connected by the activities of protecting the environment, conserving ecology and preventing pollution.¹ This relationship represents one kind of relationship between human beings.

In the Law on Environment Protection, Article 6 defines the range of 'the public' and makes the public responsible to fight against pollution, stating that all units and individuals have the obligation to protect the environment and have the right to report on or file charges against units or individuals that cause pollution or damage to the environment. Public involvement is regulated in other environmental laws; for example, in the 1996 versions of the Law on the Prevention and Control of Water Pollution and the Law of the People's Republic of China on the Prevention and Control of Environmental Noise, Article 13 states that environmental impact statements shall contain comments and suggestions from the units and residents in the place where the construction project is located. There are also detailed rules about public participation in the Law of the People's Republic of China on Environmental Impact Assessments, including how the public and experts participate in the EIA process and the requirement for public participation in preparing the report. To enforce the above regulation, a special regulation called 'Temporary Rules for Public Participation in Environmental

¹ Geping Qu, Chrestomathy of Environment and Resources Law [M]. Liberation Army Press: Beijing. 2002.

Impact Assessments' was released in 2005, and this is considered to be an important systematic regulation document regarding public participation in China.

With its conservative political environment, China does not have much experience in political democracy, and the situation is the same in the environmental legal system. Lacking theory and mechanisms, public involvement is being promoted slowly in the legal system. Public involvement in EIAs does not involve the public in the entire range of environment activity, so there is a 'Regulation on Public Involvement for Environmental Protection' currently being drafted.

2.2 Innovation and Development

Public involvement was undertaken carefully in China, and much of it was promoted by research or trials. Some of it was pursued in cooperation with foreign organizations. Also, local NGOs and spontaneous participation have been very important.

Case 1: There is an early case of an environmental meeting with public participation in Danyang, Jiangsu Province, in 2000. Nanjing University and the World Bank took the initiative to introduce public participation in environmental issues at a meeting in the province. At that time, this was a pioneering step in this field; people had not even heard of public participation before, and this step contributed considerably to spreading awareness of it. Prior to the meeting, there were about 90 appeals to the local EPB in the Danyang area, but following the meeting and the accompanying media coverage, the number increased to 497 environment-related appeals in 2002.

Case 2: NGOs, the public and experts were all deeply involved in environmental issues in the Yuanming Garden Affair, the Nujiang River Affair, and many other small, local affairs. Through these affairs at that time, the awareness and consciousness of the public were raised by successful participation.

Case 3: Hotline 12369 is the telephone number for environmental issues appealing in China. It is one communication route between the public and the local governors.

Comments: The history of public involvement in China is relatively brief, and so the social foundation and systematic underpinnings are weak. In recent years, grass-roots evolution has been the main driving force of development of public involvement. The lack of support and guidance from the government is a significant problem. This is not to say that the government is an essential element for public involvement, but governmental support and the correct regulations are vital for public health and

sustainable development. Most of the public are aware of the need for environmental protection; however, most of them cannot participate in an efficient manner. Therefore, as researchers, it is necessary to help the government build an open-minded attitude and establish a proper guidance mechanism.

2.3 Public Involvement in the Tai Lake Basin

In Jiangsu Province, the government dominates not only in activities related to public involvement in environmental issues but also in almost all social affairs. Because local fiscal income is large enough to respond to public demand, local government has customarily solved every problem with government-devised solutions rather than ask for the public's help. In the case of the Tai Lake Basin, however, the government designed and innovated new styles and routes for public participation.

Case 1 (Information Disclosure and Public Involvement): Information disclosure is a precondition of public participation. In Jiangsu, except for the regular governance fields such as legislation, policy making, planning, EIAs and sensitive construction projects, corporate environmental behavior is disclosed to the public every year according to a yearly assessment system. In this system, nearly 20,000 corporations are evaluated according to their environmental behavior, including their observance of laws, pollutant emission, environment management systems, etc. Corporations are classified into five classes: green, blue, yellow, red and black, from the best to the worst. The government established a series of policies to punish the black-rated corporations and to warn redand yellow-rated ones. In addition, the classification results are disclosed to the public, which results in pressure on the corporations from the media, the public and the market. Case 2: An Environment Roundtable Meeting was initiated in Jiangsu Province in 2006. There were participants from four cities in the trial period, covering major industries such as chemical, dyeing, power generation and manufacturing. As a mechanism jointly designed by government and research institutes, the roundtable meeting could not solve all the environment issues, but it did provide a communication platform and a negotiation mechanism for different stakeholders. It also provided a new opportunity for the public to engage in dialogue with the government, corporations and other participants such as experts or the media. Moreover, it is considered to be an education tool, providing a model for how to take part in such a meeting in an efficient way. After

several trial meetings, guidelines for extending the environment roundtable meeting mechanism developed in Jiangsu Province were released by the Jiangsu EPD. To encourage more people to participate and to better popularize the meetings, Nanjing University and IDE initiated a joint project to promote such meetings. Meanwhile, local water environment policy analysis, the state of public participation and local environmental protection evolvement are also targets of research.

3. Field Research in Yixing

In 2010, researchers from Nanjing University and IDE visited Yixing three times as part of a two-year joint research project that had been undertaken. There were four main tasks during these field trips.

3.1 Follow-up of Meeting Agreements

The outcome of the meeting is the most essential element of the environment roundtable meeting mechanism. In a previous meeting, residents from Guanghui Community complained about dust pollution from a power plant, water pollution from a fertilizer factory and a domestic wastewater pipeline. In June 2010, researchers from IDE and Nanjing University visited the community again and interviewed local residents who had attended the meeting.

Domestic wastewater pipeline

There is an important river that flows into Tai Lake named Shedugang River, and there is an old famous fertilizer factory along the river. Many of the residents of Guanghui Community live beside and fish in the river, and the river water is also used for irrigation; so, the residents are sensitive to the water quality. They found that the water quality decreased from time to time. Dead fish would be seen along the river when water quality was poor. The residents visited the factory several times, but they did not know whom to contact or how to prove the connection between the water pollution and the fertilizer factory. At the roundtable meeting, the residents brought forward their question and difficulties. The delegate from the fertilizer factory admitted that sometimes, when they restart their production line, there is some wastewater with a high

concentration of COD discharged; he promised to collect this kind of wastewater from now on and to start research on how to reduce unstable production.

Mr. Tang, who is the vice director of Guanghui Community, noted that the frequency of water pollution had been reduced and that now the problem is how to clean the sullage on the river bottom because it could release nutriments, resulting in pollution.

Dust pollution

On the windward side of Guanghui Community, there is a large thermoelectric plant called Xielian. Guanghui Community is a newly-built community, and the residents have found that there is always coal dust on the furniture and floor. After investigation, they found that only Xielian Thermoelectric Plant burns coal. The residents called the plant previously, but they have not received any response heretofore. In a roundtable meeting, the delegate from Xielian, who is also the vice manager of the plant, learned about the problem and promised to solve it.

Mr. Tang told us in an interview that the plant had prepared a plan and had started to purchase the equipment to solve this problem. The construction is scheduled to be finished in the first half of 2011, and they will continue to monitor the progress.

Wastewater pollution

As newly built community, the infrastructure is not complete. Domestic wastewater could not be pipelined to the wastewater treatment facility and was discharged directly into a small river near the community. Mr. Tang raised this problem in a roundtable meeting, and the government official agreed to research it after the meeting.

Mr. He, who is vice director of the Yixing Economic Development Zone, told us in an interview that they have decided to invest the remainder of the money by themselves to build the pipeline for this community, and the construction, which had begun, was to be finished in six month. Usually, such construction should be funded by the city government. However, they missed the deadline for budget apportionment in this fiscal year, and so the city government could only provide 70% of the money in this fiscal year. Since the pollution problem could grow, the Economic Development Zone decided to solve the problem immediately with its own funds.

Consciousness raising

After the meeting, the consciousness of residents was raised, especially that of the residents who attended the meeting. Although only a small group of people attended, it is still significant as a start. It caused the residents to think more about the local environment and stimulated their desire to express their opinions on environmental issues. For example, the grass in the community was planted by the lowest bidder, but after several years, it had degraded heavily and needed to be replanted. The new bid plan was suggested by the residents and placed the highest priority on grass quality.

3.2 New Management Organization

Interview date: June 2010.

Interviewee: Water Pollution Prevention and Control Office for Tai Lake, Yixing.

After the 2007 water crisis in Tai Lake, Jiangsu Province established a series of rules for both the long-term and short-term. For executing these rules and coordinating the activities of different departments, Water Pollution Prevention and Control Offices for Tai Lake were established at the provincial, municipal and county levels.

The office in Yixing was established as a government department, with financial support. The staff of this office was in the Department of Environmental Protection and the city's Development and Reform Commission (DRC). The director of this office is also the vice director of Yixing DRC because the DRC is the most powerful department in the government.

Responsibilities:

- 1) Planning. This includes 'medium- and long-term treatment of water pollution in Tai Lake in Yixing', 'treatment plan for rivers flowing into Tai Lake in Yixing', and the annual plan of the office.
- 2) Working report. A monthly working report is prepared by the office.
- 3) Monitoring, assessment and evaluation. Under the annual project and treatment plan, the office is in charge of assessing the participating departments and evaluating them. This evaluation result is used in the annual evaluation of the city government and is an important part of it.

In light of its responsibilities, we can see that this office is one kind of negotiation organization rather than a functional department.

Office section design:

In the office, there are 3 sections with 10 staff members.

- 1) Integrated affairs section. In charge of ordinary work like system building, meeting arrangement and documentation. It is a supplementary section.
- 2) Operation section. In charge of planning, working project design, project applications, research, data collection and analysis, public services and coordination with other departments. It is a key functional section.
- 3) Evaluation section. In charge of evaluation of each department according to the plan and working project, in charge of statistical analysis of the construction projects, and in charge of providing evaluation reports to the upper departments.

Information disclosure:

- 1) Monthly report. This report is sent to related departments and includes updates on the new progress in water environment treatment.
- 2) Website. There is a new heading on the Yixing DRC website called 'Tai Lake Treatment'. Under this heading, information about treatment activities is found, as well as government work. There is a forum called Yangxian Forum on the Internet which is managed by the office for resolving public questions and appeals regarding Tai Lake.

Although it is a coordination office, the Water Pollution Prevention and Control Office for Tai Lake has played an important role in water treatment already. We hope to see if public involvement can be managed by this office since it is a good platform for negotiation.

3.3 Community Education and Green Construction

'Green Community' is a designation authorized by various levels of government. To be a Green Community, not only should the environment be good, but also an overall management system should be established for cleaner energy, noise control, environmental sanitation, greenification, construction management and environmental education. Green Communities have a relationship with Tai Lake treatment because communities and humans are cells for water ecology. According to the data, there were 19 Green Communities in 2009 in Yixing, of which 9 were designated by the provincial government, 8 by Wuxi City and 1 by Yixing.

Guanghui Community was designated by Wuxi as a Green Community. This community is promoting its behavior and lobbied for the award from provincial government. There are three main environmental problems in Guanghui Community.

1) 40% of the residents came from other cities, and the majority of the remainder

came from rural areas. Some residents do not like to live in the buildings and moved to their carports. There are no pipelines in the carports, so the wastewater is discharged into the rainwater collection system, which causes pollution. It is hard to manage their behavior one by one because the population is large.

- 2) Some of the residents live on farmland, and after harvest season, they take residues back as fuel. Incomplete combustion pollutes the air.
- 3) Sales people from outside of the community do not care about the environment and sanitation, and they are difficult for the community to manage.

The community is working on these problems and has tried to solve them with the participation of the residents.

Baodong Community is a provincial Green Community in the eastern part of Yixing. Mr. Tang held discussions with the researchers visiting this community of 17,600 persons and learned about their experience in green building. Environmental education and open-mindedness toward public involvement are two characteristics of Baodong Community. The community places high priority on residents' opinions and organizes many small group meetings regarding the teaching of how to apply environmental protection theory in normal life. Encouraged by small progress, a constructive and active atmosphere developed surrounding environmental protection in Baodong Community, and thus naturally, it became a provincial Green Community.

3.4 Agriculture, Lifestyle and New Topics

Given the hot issues to which residents paid attention in the meetings and given the results of field research, there are more topics that should be addressed in environmental protection, especially in agriculture and rural lifestyle. Although these activities do not directly generate water pollutants in Tai Lake, they could exert indirect influence on the environment, including water.

- 1) Agriculture This includes farming, planting, aquiculture, breeding and other agricultural styles. Although China has a long history of agriculture, the planting is conducted in a quite traditional manner and is not environmentally friendly. It is difficult to alter people's working style by government decree, so communication and roundtables among residents, the government and experts should be helpful.
- 2) Lifestyle There is no consciousness about environmental protection in normal life. Education and social communication are required to help people build an environmentally-friendly consciousness.

3) Education (including Self-education) Education is important for spreading environmental philosophy to the public, self-education is one way to pursue education. In self-education activities, people gather together, hold group seminars and express their opinions to help themselves improve their behavior.

4. Roundtable Meeting Review

4.1 Public Meeting to Review the Previous Roundtable Meetings

Overview

Since there is experience with roundtable meetings in Guanghui Community already, in November 2010, a public meeting was held in Guanghui to review the effect of the meetings and to see if there are any recommendations or further requirements.

Location: Meeting Room in Guanghui Community Hall, Yixing

Time: November 18, 2011

Theme: Attitude toward and Perspective on Roundtable Meetings

Compere: Mr. Tang, vice director of Guanghui Community

Participants:

Mr. Tang from Guanghui Community;

Kenji Otsuka from IDE;

Laijuan Shan from NJU & CEMP;

Residents from Guanghui Community;

Meeting effect

There were 40 questionnaires sent and 31 of them were returned, making the return rate 77.5%. Of the 31 participants, 15 of them attended the public meeting.

Basic information of the residents

Of the questionnaire respondents, 70.8% of them were male. Over half of the

respondents were middle aged, ranging from 36 to 55, and over 80% of them were educated in senior middle school, which enabled them to complete the questionnaire. Although the residents have less and less land, 34.6% of them are still farmers, and almost all the residents earn less than RMB3,000 per month.

Basic recognition of the environment

The questionnaire data analysis showed that over 70% of the residents think negatively or conservatively about the local environment. According to the further interviews at the meeting, most of the people thought that the Xielian Thermal-Power Plant pollutes the air. Some of the people think people from outside do not care about the environment and leave garbage on the ground.

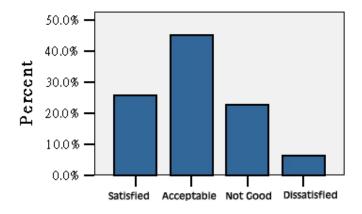


Figure 1. Satisfaction with the Local Environment

Nearly 80% of the people believe that the public involvement is helpful for environmental protection. However, in contrast, the public has become accustomed to asking for help from the local EPB when they face environmental issues. These two responses highlight the conflict between the public desire to participate and the lack of effective participation tools.

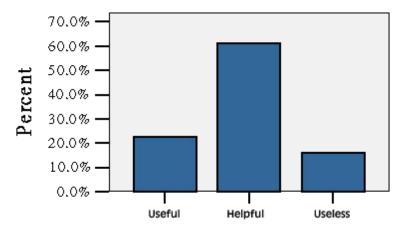


Figure 2. Attitude toward Participation Contribution

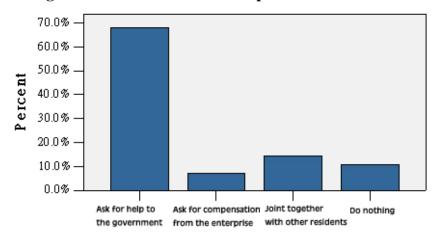


Figure 3. Measures being Taken for Environmental Issues

Most of the people care about Tai Lake a great deal, and they also believe that there is hope of reaching the treatment target in 2020. While not a scientific observation, this reveals the deep relationship between the residents and local water.

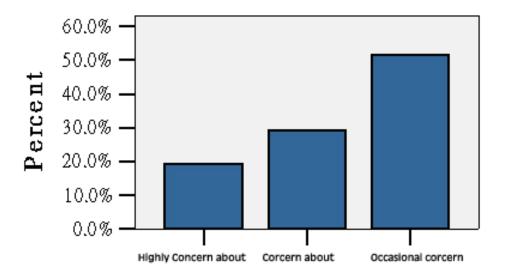


Figure 4. Level of Concern about Taihu Lake

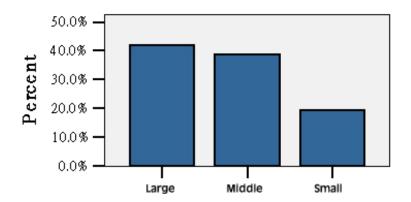


Figure 5. Possibility of Reaching the Target

Only 35% of the residents are willing to pay for the treatment. There are three possible reasons for this result. First of all, Yixing is upstream of Tai Lake, and they themselves would not usually see directly the improvement in the lake water. Secondly, the residents of Guanghui Community do not use Tai Lake as a drinking water source. Thirdly, the willingness-to-pay theory could not be understood by the residents.

Roundtable meeting

There were some reservations regarding the meeting among the residents, and so they also think that they would like to try to attend some meetings and see the effect. The same results appeared when asked concerning the effect of the meeting.

Table 1. Degree of Agreement with the Roundtable Meeting Mechanism

Options	Frequency	Percentage (%)
Like the meeting style	12	38.7
Willing to try and see the	15	48.4
effect		
Dislike the style	4	12.9
Total	31	100

Table 2. Effectiveness of the Meeting

Options	Percentage %	Cumulative Percent
Effective	9.7	9.7
Somewhat Helpful	61.3	71.0
Useless	29.0	100.0
Total	100	

Although there are some reservations regarding the roundtable meetings, 86% of the interviewees would like to pay attention to the notices of roundtable meetings in the community. Over 80% of the interviewees would like to attend the meeting if they are invited. Some people choose to attend the meeting when they are interested in the topic, and no person would give up the opportunity.

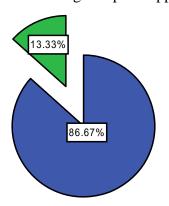


Figure 6. Willingness to Pay Attention

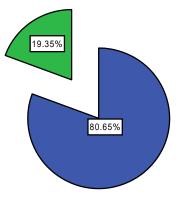


Figure 7. Willingness to Attend
Meetings

to the Notices of Meetings

Over 95% of the interviewees would like to ask for help in the roundtable meeting.

The reason for such a high proportion is not due to how attractive or useful the roundtable meeting is, but is due to there have been such few opportunities to express their appeals in public. Over 70% of the interviewees felt it was difficult to express their dissatisfaction with environmental pollution.

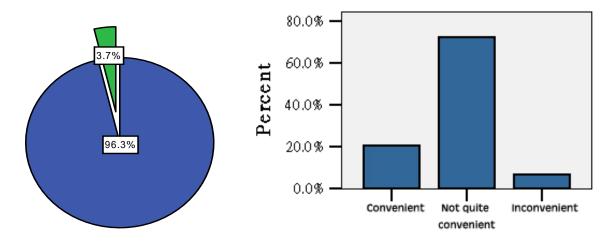


Figure 8. Tendency to Ask for Help at Roundtable Meetings

Figure 9. Convenient or Not to Express Dissatisfaction

An encouraging result is that people's purpose in attending meetings is not only to gain personally, but also to conserve the public environment. We are pleased to see that over half of the respondents have developed consciousness regarding public well-being.

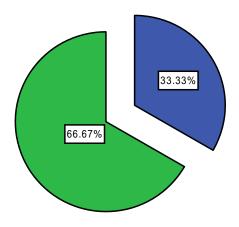


Figure 10. Purpose of Attending the Meeting

In the interview, almost all the people thought it was important to attend this public meeting so that they could absorb more opinions and suggestions.

Among the difficulties discussed at the roundtable meetings, the issue of 'not enough

enforcement of the corporations' is the most frequent subject, followed by 'not enough environmental consciousness among the public'.

Among the obstacles to public attendance at the meetings, the interviewees again referred to corporations, stating 'lack of enthusiasm because of not enough enforcement of the corporations'. The next two obstacles most frequently cited were 'lack of professional environmental capability and policy knowledge' and 'difficult to pressure the government and corporations because of incomplete residents' participation'.

Regarding improvement measures for roundtable meetings, over 80% of the interviewees believe the government should offer more support. Supervision and publicizing of information were also rated as important in the questionnaires.

4.2 Roundtable Meeting of the Rural Community

Overview

On January 15, 2011, a new roundtable meeting was held in Sanyang Community, Yixing. It was a trial meeting on new topics, namely agriculture and lifestyle. An NGO was invited to the meeting as an observer for the first time.

The details of the meeting were as follow:

Location: Meeting Room in Sanyang Community Hall, Yixing

Date/Time: January 15, 2011, 13:30-15:30

Theme: Agriculture production style, rural lifestyle and water environment protection

Compere: Mr. Tang, vice director of Guanghui Community, who is quite familiar with

roundtable meetings

Table 3. Participants

Organization	Participants
Nanjing University	3
Friend of Nature, Nanjing (NGO)	1
Water Pollution Prevention and Control Office of Taihu Lake, Wuxi	1
Environment Protection Office of Yixing Economic Development Zone	1
Compere and delegates from Guanghui Community	1
Officials from Sanyang Community	2
Delegates from corporations	4
Residents	8
Total	21

There are 1,005 residents in Sanyang Community, which has belonged to the Yixing Economic Development Zone since 2009. Most of the people subsist on agriculture. According to the plan, there will be new cluster housing to replace the antiquated individual houses in the future, so the residents will face the problem of adapting to a new lifestyle.

With regard to the main topics of the meeting, the delegates in the meeting talked particularly concerning the following topics.

1) The relationship between new fertilizers and the water environment

In traditional Chinese agriculture, people use human waste and sludge as fertilizer. This not only solves the sewage treatment problem but also helps maintain fertile land. However, now for increasing the crop yield, people use artificial chemical fertilizers instead of natural ones. The artificial ones destroy the balance of nature and make the water eutrophicated by runoff from farmlands; the accumulated wastes aggravate the eutrophication process. The residents at the meeting called for ecological-friendly agricultural planting, and they hope that agricultural experts can give them assistance to increase production using traditional planting methods.

2) The utility and possible application of Decentralized Small-scale Wastewater Treatment Facilities (DSWTF) in rural areas

It is beneficial to use DSWTF in rural areas because, due to the long distance, it is not economical to build long pipelines and large-scale wastewater treatment facilities. However, the largest obstacle to the DSWTF is the building and operating cost; people do not want to spend such a large amount of money, usually half of a family's yearly income, to build a DSWTF and one-fourth to one-third of a family's yearly income to operating it. The residents at the meeting hope that the government can help to reduce the cost by providing some subsidy.

3) Water environment and agricultural industry

Some of the delegates represented corporations, and many of they are engaged in aquiculture. Most fish and aquatic animals are sensitive to water quality, so the issue of water quality and the need to protect the rivers was a major topic of discussion for the delegates. Also at the meeting, the residents questioned the official at the meeting about the illegal discharge of a wastewater treatment facility along the river and had a dialogue with him about it.

4) Local residents' wishes and demands to the government regarding management, governance, education, publicizing, and dialogue with the

government

The delegates at the meeting were all grass-roots representatives, and their demands consist of the most basic demands from the public. At the meeting, they talked about what they wish to receive from the government. They hope to have more communication routes, more educational activities and more opportunities to express their opinions.

At this meeting, all the topics were from grass-roots sources and very concrete, which produced meaningful dialogues. The residents are willing to express their opinions in a friendly and impassioned atmosphere; there were speeches, dialogues and experience-sharing at the meeting on topics that are close to everyone's lives.

Although the meeting was considered successful, it still had some shortcomings. First of all, since this was the first time to hold such a meeting at that location and the residents had many opinions to express, the contents of the meeting were not focused on a single problem. Thus, there was no negotiation or agreement reached at meeting. Secondly, since the residents lacked experience in participating, they did not know how to express their opinions concisely, and they always raised many issues simultaneously. Thirdly, the meeting was no adequately publicized, and the residents did not obtain sufficient information about the meeting in advance.

Meeting effect

There were 20 questionnaires distributed after the meeting, and 18 of them were returned, making the return rate 90%. Of these 18 questionnaires, 16 were valid, so the validity rate is 80%.

Basic information about delegates at the meeting

At this meeting, over half of the people were from 36 to 55 years old, and nearly half of them are farmers (Figures 1 and 2). From an educational perspective, most of the delegates are well-educated (Figure 3), and this enabled them to participate more fully. In Figure 4, it can be seen that most of the participants are not wealthy; as seen in the questionnaires, the farmers are in the low-income group. The low income of farmers is a fact in China, and it is an obstacle to farmers' participation in public affairs.

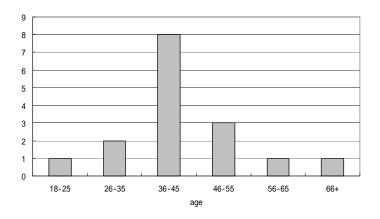


Figure 11. Ages of Delegates at the Meeting

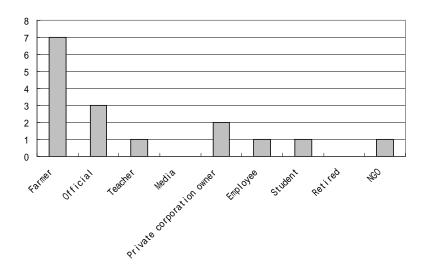


Figure 12. Jobs of the Delegates at the Meeting

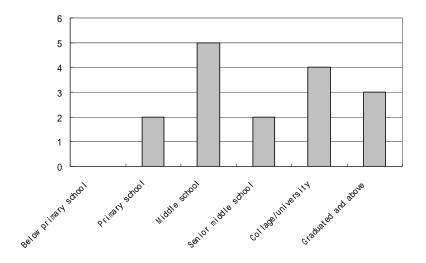


Figure 13. Educational Level of the Delegates

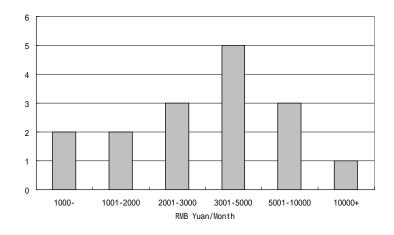


Figure 14. Income Level of the Delegates

Attitude toward environmental protection

The first part of the questionnaire covered the basic attitude of residents toward environmental issues. From the result, we can see that more than half of the residents are not satisfied with the quality of the local environment.

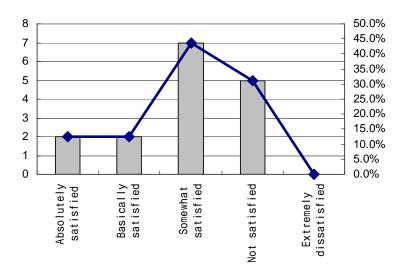


Figure 15. Satisfaction with the Local Environment

Local people's main source of environmental information is the Internet and TV, which shows that modern media is affecting everyone's life ever more deeply in China.

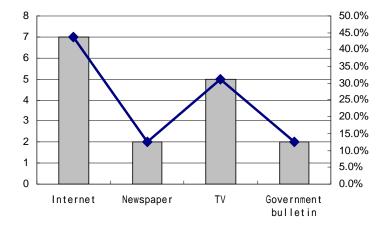


Figure 16. Main Information Sources

With regard to the content available to the public, news reports and communiqués are easy to obtain. However, few people care about corporate misbehavior and the public release of EIAs, which shows that the government does not provide easy access to this information or that people are not capable of understanding its meaning. Comparing with the information, it seems that people are not satisfied with the disclosure situation.

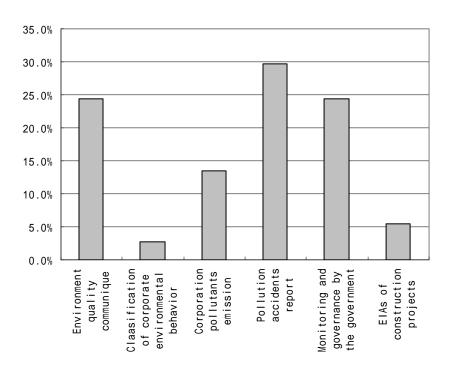


Figure 17. Publicly Accessible Information



Figure 18. Satisfaction with the Degree of Information Disclosure

People have different opinions on the reason for the lack of transparency. Lack of enforcement of regulations directed at corporations is generally considered as the main reason.

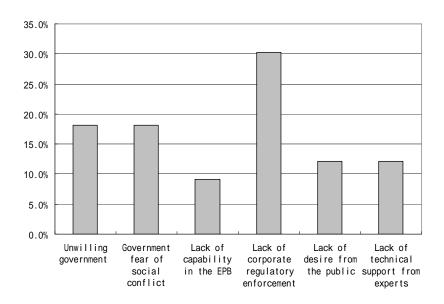


Figure 19. Possible Reasons for Lack of Transparency

In addition to information disclosure, all the people believe that environmental conservation is boosted if the public is involved. However, voluntary environmental protection activities are not well executed by all the residents. In particular, a few people want to learn and spread information actively. However, when the residents face environmental damage, their first thought is still to ask the government for help.

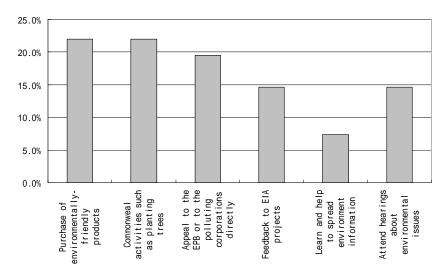


Figure 20. Environmentally-Friendly Activities Engaged in by the Public

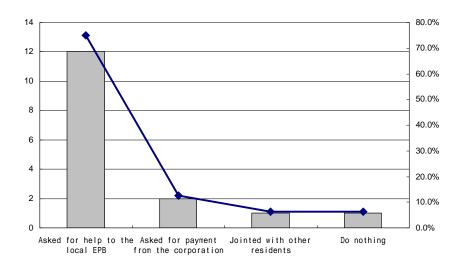


Figure 21. Action Taken after Environmental Damage

Recognition of Treatment of Tai Lake

Since we are doing research on Tai Lake and the residents at the meeting have lived beside Tai Lake for decades, we questioned them about their recognition of the treatment of Tai Lake.

Most of the people care about the water quality of Tai Lake, as we expected. Most of the people responded that they believe the water quality could be improved in 2012 and largely cleaned up in 2020. It is not too much an assumption to say that we can at least see the deep relationship of the public with Tai Lake and their desires regarding it.

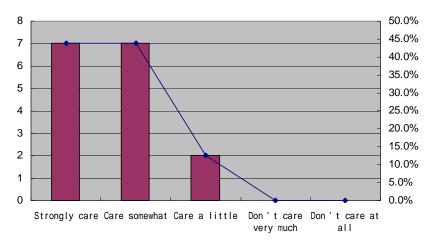


Figure 22. 'Are you concerned about the water environment of Tai Lake?'

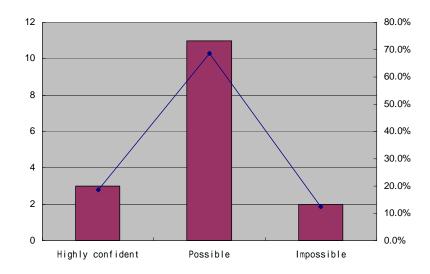


Figure 23. 'Do you believe the treatment target can be achieved?'

Regarding the difficultly of treatment, people expressed various opinions. However, many of them recognize the complexity of the pollution situation and show understanding toward the government.

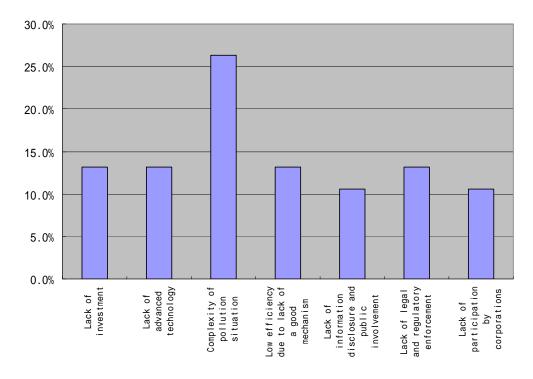


Figure 24. Difficulties in Treatment

Most people hope the water quality can be returned to a high level as it was in their childhood. However, in the same questionnaire, they expressed their concern regarding

willingness to pay. It seems not all the people understand the meaning of paying for water treatment. The government and researchers (should engage in more educational outreach and let the public know more about what government is doing.

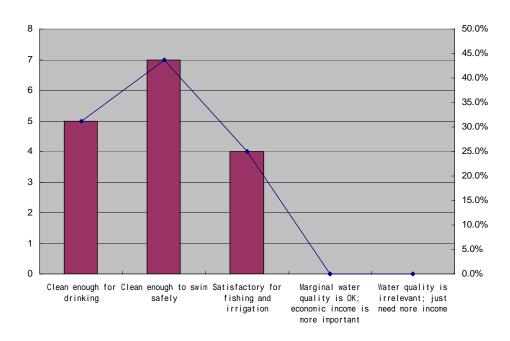


Figure 25. Treatment Target Desired by the Residents

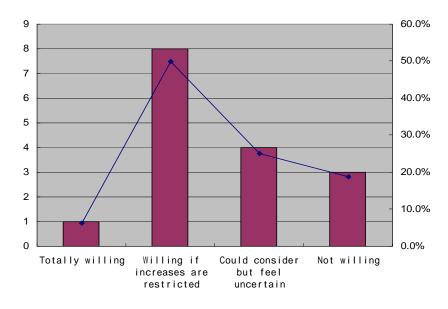


Figure 26. Willingness to Pay for Treatment

Attitude toward community roundtable meeting

Many of the delegates chose the option of 'I have attended a roundtable meeting before', and some of them stated that they had heard about roundtable meetings. They even reply that they have attended meetings. However, according to an interview with Mr. Tang, it is thought that most of the people had not attended any meeting of this type before, so there may have been a misunderstanding of the question. The delegates may have just heard about the meeting before.

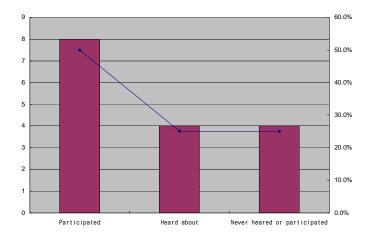
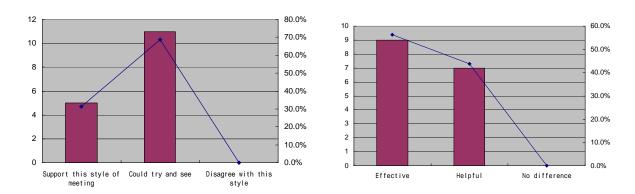


Figure 27. Previous Participation by the Delegates

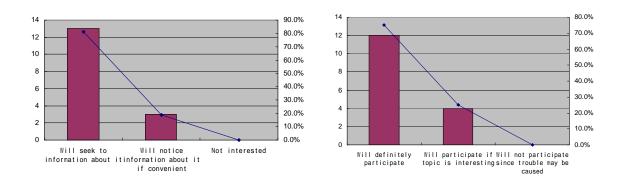
Still, most of the delegates displayed an optimal attitude regarding the mechanism of the roundtable meeting after attending the meeting, giving a positive evaluation of either the meeting style or the effort to promote environmental protection.



Figures 28 and 29. Attitude toward the Roundtable Meeting

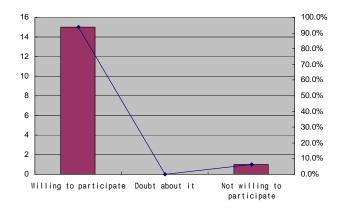
Most of the people expressed an interest in the roundtable meeting and want to pay

attention to the announcement of the next one. If invited, most of the people want to become involved. However, this does not indicate how attractive the roundtable meeting is. it indicates the desires of the residents to participate.



Figures 30 and 31. Attitudes toward More Meetings

The above result was also reflected in the following two questions. All the people want to communicate with the government and corporations on environmental issues. Most of the people want to participate in the meeting and hope that the roundtable meeting is effective in solving their problems with government support.



Figures 32. Residents' Desire to Participate in Dialogues with Government and Enterprises



Figures 33. Residents' Desire to Participate in Roundtable Meetings

At the roundtable meeting itself, the delegates believe that the government is the most essential presence at the meeting. This is in accordance with the belief in China that government is strong and society is weak, i.e., the government controls everything, and people rely on the government.

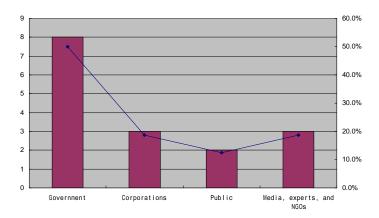


Figure 34. Most Essential Stakeholder in the Meeting Negotiations

Although a roundtable meeting is a new means of communication, people are willing to try it if their rights have been infracted. A certain number of people are very enthusiastic to attend meetings on public environmental issues (Figure 36).

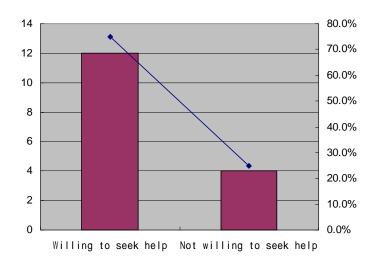


Figure 35. Willingness to Seek Help at the Meeting When Personal Environmental Rights are Infracted

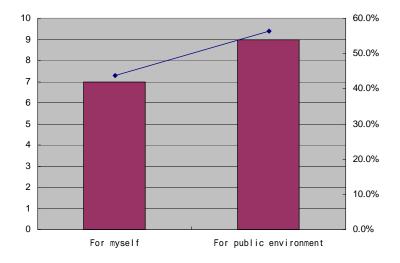


Figure 36. Attitude toward Attending the Meeting for Seeking Personal or Public Environmental Rights

Residents have few means of communication, and that is the reason why people are so interested in this new means of communication. Prior to the meeting, over 68% of the people felt inconvenienced when they wanted to express their dissatisfaction about the environment, and following the meeting, they all agreed that the roundtable meeting is a good place to express their opinions.

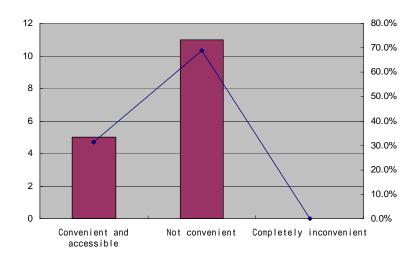


Figure 37. Convenient or Not to Express Opinion at Roundtable Meeting

Many people believe that it is necessary to hold a preparatory meeting before the roundtable meeting. As the function of the preparatory meeting, most people chose 'learning information' and 'exchanging opinions'. These are two important elements when designing the mechanism for the future.

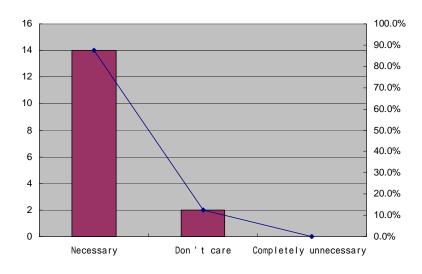


Figure 38. Attitude toward the Preparatory Meeting

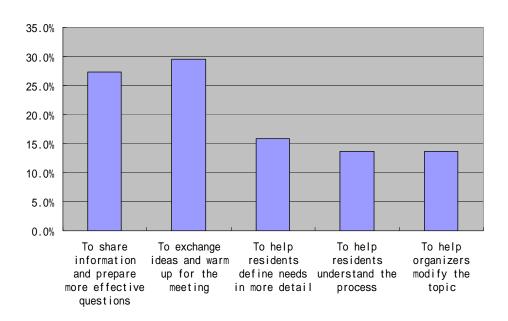


Figure 39. Function of the Preparatory Meeting

The attitudes toward the achievements of the meeting provide more evidence concerning the importance of information and the strong desire to express opinions.

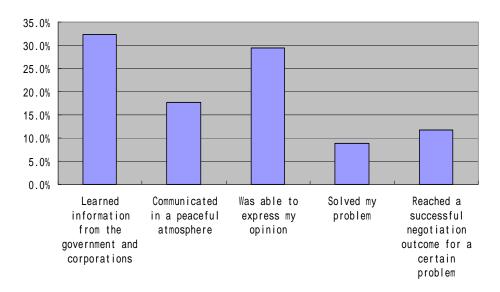


Figure 40. Attitude toward the Achievements of the Meeting

Talking about the difficulties at roundtable meeting, people once again mentioned the government. Regarding their own difficulties in participating, the residents clearly recognized that they lacked capability (in terms of experience, knowledge and skill).

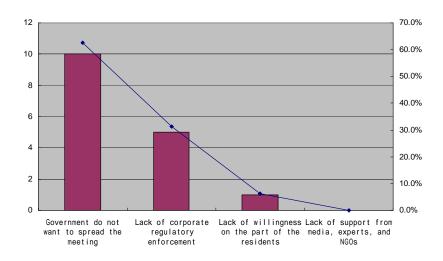


Figure 41. Difficulties at the Roundtable Meeting

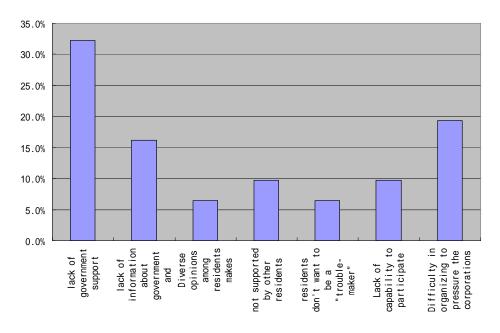


Figure 42. Obstacles to Participation

Residents' lifestyles

Since this meeting was held on the topic of human life, researchers provisionally added some questions about lifestyle for reference.

More than half of the people are conscious of environmental protection and even spend money on it. However, still more than 37% of the people do not know if their normal life is environmentally friendly. If they could be educated concerning this, it

would help to decrease environmental pressure.

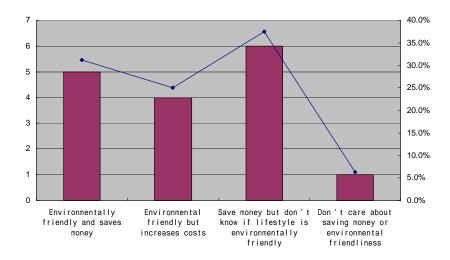


Figure 43. Environmental Friendliness of Respondents' Lifestyles

We also asked the delegates to choose the aspects of their lifestyles that they thought could be modified. Water and energy saving were chosen by a relatively high percentage.

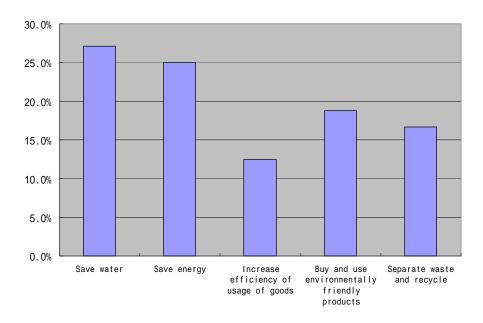


Figure 44. Aspects of Lifestyle That Could Be Modified

Environmental protection is not only a concept but also an activity in which to engage. We found that most people are conscious about environmental protection, but over half of them cannot put this concept into action unless they are reminded.

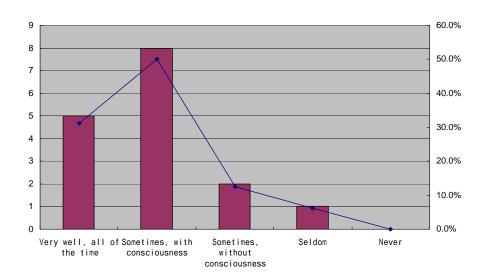


Figure 45. Taking Action for Environmental Protection

Fortunately, people do realize they should practice more self-discipline and persuade others toward better behavior.

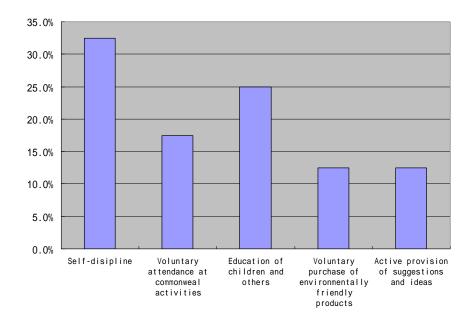


Figure 46. Behavior-Modifying Activities

Agriculture production

Not all the delegates are engaged in agriculture; however, there are some questions about the effect of environmentally-friendly activities on agricultural production for reference purposes only. As seen from answers to the section of the questionnaire that

covers this, people do want to decrease the pollution resulting from agricultural

production. Unfortunately, there is no economically efficient technology available, and

they receive little aid from the government, experts or any other organization.

5. Conclusion and Perspective

It is difficult to increase public involvement, not only in environmental protection but in

any social problem. However, it is necessary to do so even if the progress is slight.

Environmental protection issues are complicated and cannot be solved in a short time

period. The same is true of building a good atmosphere for public involvement, not only

because we need time to create an open society, but also because the public needs to

increase its capacity, in terms of experience, knowledge, and skill, to participate.

Roundtable meetings are one way to resolve small, intricate environmental issues. It is

our hope that roundtable meetings will generate more ideas among people regarding

public involvement.

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