

Acknowledgement

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Civic Exchange Institute, Hong Kong
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Preface

This report is published simultaneously in Hong Kong and Shenzhen. It is the first collaboration between Civic Exchange, an independent Hong Kong-based non-profit public policy think tank, and China Development Institute, a Shenzhen-based think tank.

This is the first attempt to find out through an extensive survey the environmental attitudes of the residents of the Pearl River Delta. We hope the results published in this report will provide useful information for various government authorities in creating policies to promote environmental protection.

Civic Exchange carried out a similar survey of Hong Kong people's environmental attitudes in 2001, the results of which can be found at www.civic-exchange.org.

The collaboration between the two institutions on this project highlights the increasing integration between Hong Kong and the Pearl River Delta.

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CHAPTER ONE: OVERVIEW OF THE SURVEY

I. Survey Background

The Chinese economy has been rapidly expanding for two decades. The intensity of growth has led to many areas of inefficiencies such as high energy and resource consumption. With a growing population there is more and more pressure on China's natural environment. The transition to sustainability requires a readjustment of the economic structure. In a large country like China, the complexity of the economic structure is exacerbated by its large scale. Therefore it will not be easy to reform in the short term. The Chinese economy will continue to develop despite the lack of natural resources and population growth. Finding the balance between economic development and environmental protection is key to achieving sustainable development.

To achieve sustainable development, the industrial structure, regional economic structure and division of labor between rural and urban areas in China have to be adjusted and improved while environmental policy must be implemented. During this process, external pressure through the general public's growing environmental awareness is crucial. In some industrialized countries, protection of the environment is achieved mainly through the initiatives of the general public even before the government takes action. Currently, public environmental awareness in China is on the rise and private citizens can exert pressure through NGOs or change their lifestyle to reduce pollution and promote sustainability. Furthermore, professionals can also influence decisions relating to the environment through their firms, institutions or governmental organizations. After all, everything results from human actions. When the general public is more environmentally sensitive, pollution can be reduced effectively, solid wastes and emissions controlled, biodiversity maintained and the greenhouse gas generating process slowed.

Whilst great achievements have been made in more than two decades of economic development, China is still a developing country with serious regional imbalances and polarization. Many of the identified environmental problems have their roots in poverty. Therefore, solutions must include poverty alleviation through development and technological advancement. This does not mean that the environment should be sacrificed for the sake of mindless development. Lessons of environmental disasters in the West and in Japan in the 1950s through to the 1970s must not be repeated in China. We need to truly understand what sustainable development requires.

On the part of the government, sustainable development means promoting strong environmental education, providing the right laws and economic policies as well as aligning the public administration system to promote change. It also means using the mass media to promote environmental promotion. Allocating public funds, passing legislation, ensuring law enforcement and environmental planning are all important to environmental protection. However, without increasing environmental awareness of the public and enlisting their participation, government measures will not be very effective. Public participation is imperative in order to achieve sustainability.

The Chinese Government and the authorities at all levels are paying attention to the environment in all aspects of their socio-economic work. It was a significant move for China to announce its ratification of the Kyoto Protocol to reduce greenhouse gas emissions at the Earth Summit 2002 in Johannesburg. This is a signal of China's commitment to environmental protection.

Unfortunately, Chinese people are not aware of environmental issues and sustainability. Many pay little attention to public hygiene and litter is everywhere. Poaching and eating wildlife is relatively common. Indifference comes from lack of education, especially in the rural areas.

People do not appreciate the threat posed by industrial pollution towards their local communities. Another issue is that although government environmental agencies are aware of the environmental threats posed by industrialization, other departments have a low level of environmental awareness and do not realize that their work can also have an impact on the environment. Environmental legislation is showing a positive effect, but public awareness is critical to achieve success in the longer term. The protection and restoration of ecosystems are crucial to the longer interest of the Earth on which we live. Should the general public ignore their rights or tolerate what is harmful to the environment, the ultimate victim would be the human race.

Confronted with rapid urbanization and industrialization, how environmentally aware are the general public? How do people see the environment and how do they behave? In comparison to the people in industrialized countries like Japan and Germany, what is the level of environmental awareness among people in the Pearl River Delta, one of the wealthiest regions of China? This survey seeks answers to these questions. We hope this survey will provide some answers about the environmental awareness of the residents of China's most developed coastal region.

We also hope the results will be useful to the work of the environmental agencies in their research and decision-making, as well as proving to be a source of environmental information to the general public.

II. Methodology

- Random telephone calls were made for this survey. Samples were taken from family telephone subscribers in 6 cities and districts in the PRD (Pearl River Delta). 1,500 valid samples were targeted and 1,528 samples were collected. The analyses carried in this report are based upon these 1,528 samples.
- The 1,500 samples were distributed among the cities of Guangzhou, Shenzhen, Zhuhai, Dongguan, Zhongshan and Huizhou in proportion to their populations.
- Telephone calls were made during:
Monday to Friday 18:30 ~ 21:00
Saturday and Sunday 9:30 ~ 21.30
Commencing at June 15th, 2002 and ending at July 25th, 2002.

III. Principles of sampling

- Phone numbers were selected randomly.
- The respondents of the survey are residents of the PRD, therefore the following principles were adopted in making calls to ensure the validity of the numbers:

If it is a business phone number, record it and abandon.

- If it is a fax number, record it and abandon.
- If it is a pay phone, record it and abandon.
- If it is a phone of a lodging house, record it and abandon.
- If it is answered by a recording saying that it has changed, record it and abandon.
- If no response, record it and redial one hour later, if still no response, redial in the next half

of the day and twice in the following day. If still no response, record it and abandon.

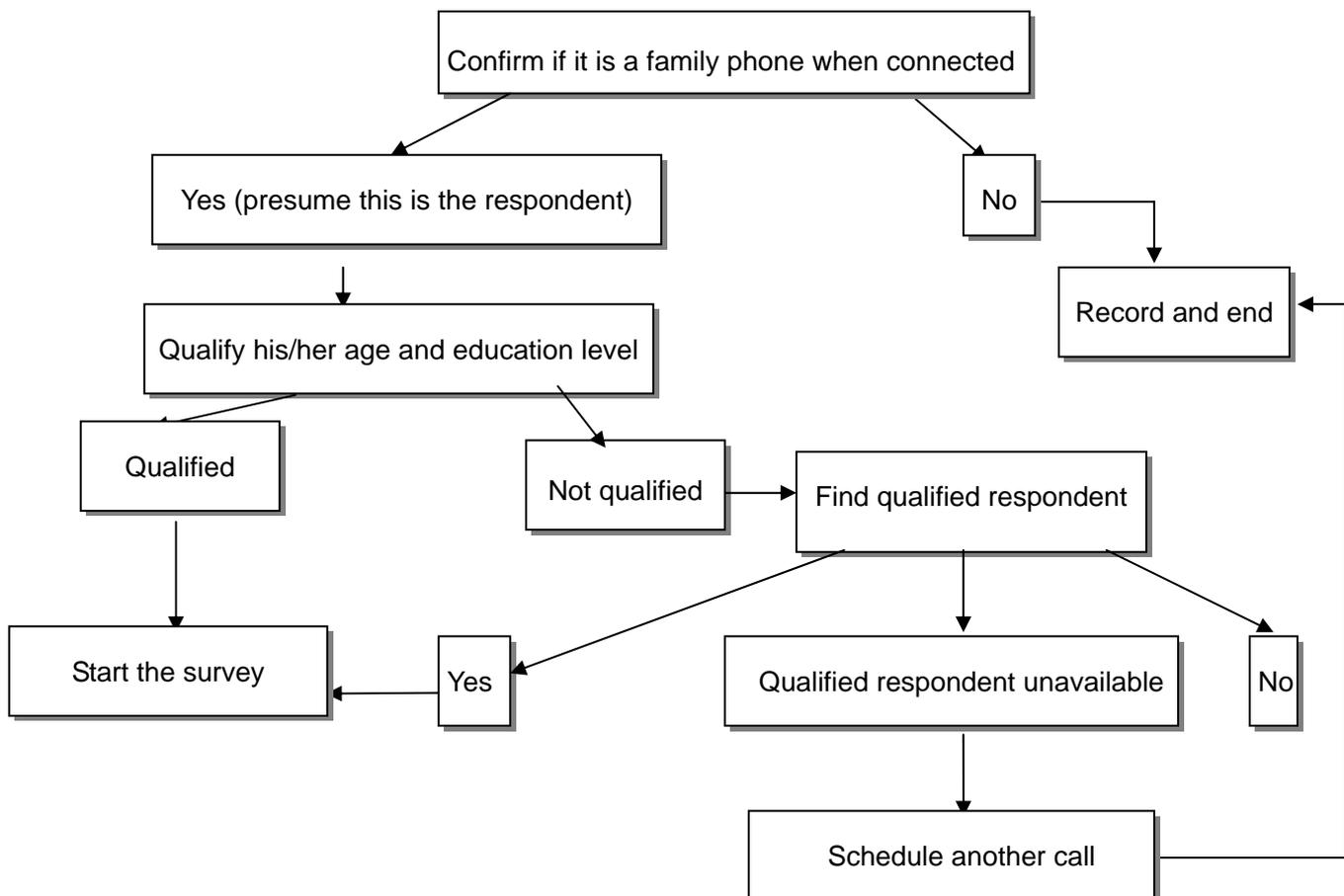
- If the call is answered and confirmed to be the family phone, then start the interview.

VI. Quality control

1. Respondent qualification

- Age of the respondents: must be 14 years old or above, people born after Jan 1988 were excluded.
- The respondent must be the family member residing at least 5 days per week in the place where the telephone was located.
- People who did not regularly live with the family were not regarded as family members. People excluded were those who came back several times per month or per year, living in school (college or university) accommodation, or studying abroad.
- If a qualified respondent was unavailable, another call was scheduled.

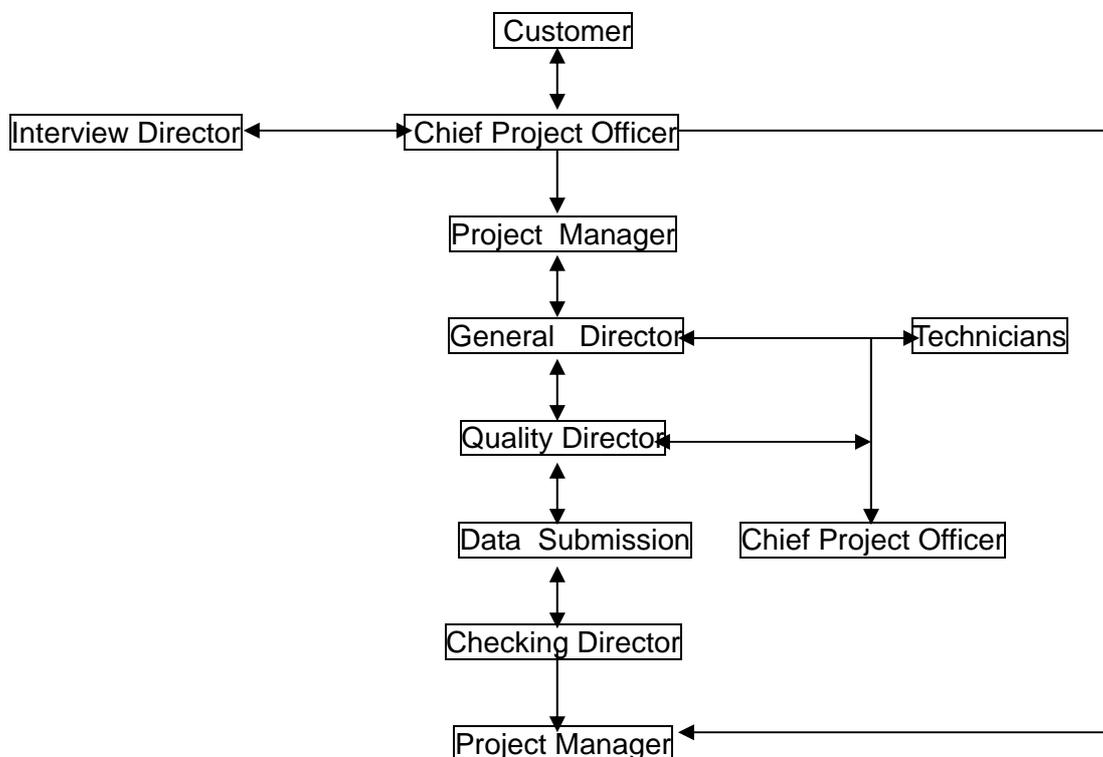
2. Respondent qualifying procedure



3. Basic requirements for the investigators

- Strictly implement the technical regulations.
- Interviewers must undertake responsibility for earnestness and civility.
- Interviewers must keep a neutral attitude in the interview.
- No explanations shall be made to the respondents.
- Interviewers have the capability of controlling the proceeding of interview:
 - a. Topics not related to the interview shall be minimized; an alternative manner can be adopted if necessary when asking questions.
 - b. Cut off gossip topics politely if they are raised by the respondents.

Organizing structure of quality control



5. Sample validity analysis

5.1 Analysis of overall call attempts

A total of 13,677 calls were made. There were not many invalid calls to pay phones, business phones and faxes. There were 3,994 calls matching the requirement of the survey, and 1,528 were qualified samples. The qualified samples made up 11.17% of the total calls, and 38.25% of the calls connected that matched the requirement.

5.2 Analysis of connected call attempts

The primary reasons for unsuccessful interviews were interviewees not wanting to be disturbed, not wanting to be interviewed, aborting the interview midway, and a lack of interest in the topic.

Unsuccessful calls for these reasons took up 61.74% of the total number of calls. It is hard to assess why there was such a high unsuccessful rate after a successful connection had been made and whether it could be linked to low environmental awareness and/or disinterest in the subject.

5.3 Analysis of failed call attempts

Failed call attempts were primarily due to no response, phone engaged, or vacant numbers. Another major reason was reaching business or fax numbers.

CHAPTER TWO: DEMOGRAPHIC PROFILE OF SURVEY RESPONDENTS

The demographic profile of survey respondents includes age, sex, profession, marital status, geographical location, as well as temporary resident and permanent resident status.

I. Age Distribution

The ages of valid respondents ranged from 14 to 80 years old. Using ranges based on every 10 years, the ranges from 14-20, 21-30, and 31-40 were the most common. Two-thirds of the respondents were people below 40 years old. The population of the PRD is relatively young and younger people are more concerned about public affairs. They have had a better education and are conscious of media discussions about social issues and the environment. Subjects aged between 41 to 60 also made up a significant portion of the respondents, most of whom started their working life before the *Cultural Revolution* and China's *Open Door Policy* in the late 1970s. Respondents over 60 years old were retired people and were on the whole less knowledgeable in the environmental area. They had more time to respond to the interview as they had more time.

II. Gender Distribution

There was 1.05% more female respondents than males. The proportion was balanced, suggesting that males and females are equally interested in public affairs on subjects like the environment and ecology

III. Professional distribution

The professions of the respondents in the survey included: governmental employees, enterprise employees, specialists (engineers, lawyers, doctors etc.), business people, service workers, office assistants, workers in agriculture/livestock farming/fishing industries, equipment operators and workers in manufacturing/transportation, military, home managers, retired people, unemployed people, students, education workers (principals, lecturers, teachers, etc.).

The survey shows most people were concerned about environmental problems regardless of their profession. The key point is how to find the most effective ways in providing more information about the environment to the people to help raise awareness further.

IV. Education level

The respondents' education backgrounds ranged from junior middle school, high school to university graduates (including postgraduate degree holders). Among them, high schools/technical schools/intermediate vocational schools represented the densest groups in the population. The proportion basically matched education attainment distribution of the overall population. The proportion of willing respondents showed that across all education levels there was overall awareness about the environment.

V. Marital status

The survey had 11% more married than single respondents. People in other situations made up 1.5% of the total. Married people appeared more consistent in their responses than single people and paid more attention to their local environment.

VI. Citizenship registration categories

Among the respondents, 80% held permanent citizen registrations and 20% temporary citizen registrations. 80% were native Cantonese, 20% had moved from other provinces. Permanent citizens felt closer to their living environment compared with the temporary citizens.

VII. Residential duration of the respondents

The survey shows that 86.2% of the respondents have lived in Guangdong for more than 10 years, 5.8% have lived for more than 5 years but below 10 years, and 7.5% of them were residents for less than 5 years. A longer residential period contributes to greater understanding of the local environmental issues.

CHAPTER THREE: CITIZENS' ATTITUDES TOWARD GOVERNMENT PRIORITIES OF ENVIRONMENTAL ISSUES

I. Overall attitude

The investigation shows that citizens expect the government to control environmental issues in the following order of priority: use of pesticides in vegetables and un-inspected meat products, water pollution (drinking water, river and sea water), air pollution, and shortage of fresh water. The results suggest that the public's highest concerns were closely related to their daily lives in the area of safe food, and clean air and water. Citizens place air pollution 3rd in order of importance, indicating that they are aware of the problems, but know little about global warming and genetically modified food. These last two items were mostly answered with "I don't know" indicating a general level of ignorance. Citizens clearly paid more attention to things that directly relate to their lives. If more information on a wider range of environmental issues could be provided through the media it would help to broaden and deepen people's awareness.

II. Attitudes of permanent residents and temporary residents towards government priority on environmental Issues

Statistical data shows that there are no obvious differences between permanent and temporary residents regarding government priority of environmental issues. The top priorities were pesticides in vegetables and water source pollution.

III. Ranking of priority given to water pollution control

People with different education levels showed a different order of concern in the priority they gave to the control of water pollution. People with a higher education level wanted higher priority to be placed on this issue. Higher education is usually equated with better knowledge and higher income, which in turn create greater attention to quality of life and personal health. Those with lower education, especially lower than junior middle school, focused more on making a basic living using their physical labor and were less concerned with problems that were not directly connected with their lives.

Improving public education is the most effective way to make more people defend their right to a clean environment.

IV. Ranking given to noise pollution control

Education level affects how people rank priority in the government's control of noise pollution. The analysis shows that 100% of the respondents with Masters degrees thought noise pollution was a problem and ranked the need for control the highest, whereas 18% of those with less than junior middle schooling thought noise control was not important. Surprisingly, respondents with doctorates did not rank noise control highly. Why?

People from uneducated or not so educated backgrounds are likely to live in high noise areas for a long time and may well have become desensitized to it. Highly educated people are likely to live in places with lower noise pollution, thus highlighting that noise pollution is an issue for those who are aware of it. It can be said that those who are aware of noise pollution avoid it. Living in a high noise environment can cause significant damage to human health.

V. Ranking given to global warming

Fewer than 50% of the PRD respondents thought global warming should be the government's highest priority. 49% of those with lower than junior middle schooling did not even know about global warming. The concern level grows with education level.

Global warming poses a serious challenge to everyone in the world. Solutions have to be global in nature. Even for those people with a higher education level, their knowledge on this issue was far from sufficient. The *Kyoto Protocol*, the ratification for which was announced by Premier Zhu Rongji at the UN Sustainable Development Summit in Johannesburg in August 2002, is a multilateral treaty to reduce global warming. This is an area where more public information needs to be disseminated so that ordinary people understand the issues and realize that we are all responsible for making improvements.

VI. Ranking given to loss of green areas

The investigation shows that 100% of the people with higher education thought the government should put the loss of green areas as a high priority whilst between 50% to 60% of the other groups ranked it as a high priority.

People's common sense informs them that trees and green areas are important to the environment. Extensive media reporting about deforestation and the banning of logging in the upper reaches of the Yangzi River is well known to most respondents. Thus it is not surprising that this issue was given higher priority.

CHAPTER FOUR: THE ENVIRONMENT AND PERSONAL HEALTH

I. Overall public understanding of the influence of the environment on personal health

The investigation shows that citizens of the PRD are very concerned about the influence of the environment on their personal health. They are most concerned about pesticides in vegetables and un-inspected meat products. Water pollution is in second place, whilst air pollution and residential environmental problems ranked third and fourth. GM food, overpopulation, and global warming ranked low in priority. There is little discrepancy between this and the priority rankings in how respondents looked at government policies. People's assessments were based on how they saw problems making an impact on their own lives. The more removed the problem was from their daily lives the lower the concern. Whilst this is understandable, it is also clear that media reports and public education can be a great influence on how people see things.

II. Concern over air pollution

Air pollution problems are becoming harder and harder to ignore for both the government and the public. A bright blue sky has become a rarity. How do people living in PRD see this problem?

1) Education levels

Whatever the education level, people expressed high levels of concern. Even among the less well educated, 50% expressed high or comparatively high concern. It seems that most people could see the serious air pollution around roads, factories and other areas.

2) Different professions

Those working in the education and government sectors showed the highest concern. Among the other workers, 70% to 80% also ranked air pollution and its impact on health a serious concern.

CHAPTER FIVE: THE PROBLEM OF PLASTIC BAGS

Plastic bags have a low recycling value. Littering not only causes visual pollution, it also causes harm. Authorities all over the country have promoted and encouraged people to reduce the number of plastic bags they use. This chapter provides an overview about how PRD citizens see this issue.

I. Degree of influence

40% of the respondents recognize plastic bags as a serious problem, whilst 34% of them saw it as a very serious problem. Only 10% thought the problem was not very serious. This indicates that the citizens are aware of the harm of using plastic bags.

This question was answered in a similar manner in many of the big cities: using and littering plastic bags greatly damages the environment. Yet in practice, for the reason of convenience, people are always willing to use them even if they realize it is harmful to the environment. Therefore the practical solutions to this problem are to develop and adopt economic tools and recycling techniques.

II. Excuses for using plastic bags

80% of people enjoy the convenience; 71% of people think it can be reused for other purposes; 58% of people use the excuse that they always forget to bring their own bag. 58% of people have not even thought about this issue.

III. The necessity of government's promotion of using fewer plastic bags

89% of the people think the government should promote using fewer plastic bags; 9.4% of them think it is not necessary and 1.5% of them answered "I don't know". The investigation found that most of the citizens support the government promotion to use fewer plastic bags. However there are still some people who are not aware of the significance [or importance] of this issue.

Developing substitute materials with acceptable prices is the key to realizing the government's plan. Simply cutting it off is not the right answer. This is the same reason that fast food boxes that cannot be recycled have not been removed from the market.

IV. If shops charged for plastic bags, would residents bring their own bags?

If shops were to charge for giving out plastic bags, 74% of the respondents said they would choose to bring their own bags. 20% said they would not bring their own bags, and 6% did not know. This analysis indicates that the vast majority of people could change their behavior if shops did not give out free plastic bags. This high percentage is consistent with a survey done in Shanghai. Indeed, that survey showed that 77% of respondents agreed that shops should cease to offer free plastic bags.¹ We cannot be entirely sure what would happen if shops stopped giving out free plastic bags. It may be that shoppers would complain and go to shops that gave out free bags. Retailers may not wish to stop giving out bags if they felt they would lose business to others. Unless there was some legislative means to reduce the use of plastic bags, asking shops to voluntarily stop giving out bags may not work in practice.

¹ See Shanghai Environment Protection: [//www.envir.online.sh.cn/](http://www.envir.online.sh.cn/)

CHAPTER SIX: INVESTIGATION AND ANALYSIS OF DRINKING WATER ISSUES

I. Analysis of drinking water resources

The survey shows that PRD residents drink tap water, distilled water and boiled water. A large number of respondents drink tap water but we suspect the respondents may have misunderstood the question. The water supply systems in many Chinese cities are known for problems related to aging and rusty pipes. Pollution caused by poorly maintained water tanks on the rooftops of high buildings (designed to resolve the problem of low water pressure) is also serious. From experience, Chinese people do not usually directly drink water from taps. Boiled water has always been the way Chinese people drink water. Traditionally, Chinese people love to drink tea using hot water. That is why they are very surprised when seeing people drink directly from the taps in Western countries. Many people now choose to drink distilled water especially when they want to drink cold water.

II. Reasons why people do not want to drink tap water

The reasons people do not want to drink tap water are worrying. They are concerned about bacteria and chemical substances. They do not like its taste and they worry about the unacceptable maintenance of water tanks. Therefore, PRD residents are concerned about the sanitation conditions of their tap water. Only a small group of people do not drink tap water because they do not want to pay for it.

CHAPTER SEVEN: CITIZENS' ATTITUDES ON GREEN PRODUCTS

I. Green Food

Green Food refers to food certified by specialized organizations using the "Green Food Mark". This represents safer, higher quality, and more nutritious food, such as organically grown food.

1. How much do PRD residents know about Green Food?

The investigation shows the degree of knowledge and acceptance about Green Food varies significantly among the respondents. 17% of them don't know about Green Food, 5% do not want to buy Green Food; 31% of people seldom buy it. 47% would often or always buy Green Food. This suggests that at least half of the population do not accept or have sufficient knowledge of Green Food. The lack of knowledge on Green Food is due to lack of education, advertising by the manufacturers, and media reporting. Another factor is that Green Food is usually more expensive, which is likely to be an important factor for many people and is consistent with surveys in other countries. Public conceptions need to be established that eating Green Food is good for their health and also the environment. As the Chinese economy becomes more developed and people become wealthier, there is a tendency for people to eat higher up the food chain, which puts more pressure on the environment. Thus, beyond the discussion about the benefits of Green Food, eating lower down the food chain is not only more sustainable but also healthier for humans.

2. Reasons for not buying Green Food

The key reasons for people not to buy Green Food, are that they do not know much about Green Food, they cannot find it in shops, and do not trust the Green Food mark. Costs and not believing in its benefits were surprisingly not the top reasons for people resisting Green Food. Adopting stronger laws to deter product misrepresentation in order to establish trust in labeling schemes is critical to getting Green Food better accepted. Green Food is more expensive because of its strict inspection and higher costs. Since it is hard to distinguish real and fake products, unscrupulous producers can get away with misrepresentation. Thus, building trust in a brand becomes very important for honest producers.

3. Reasons for buying Green Food

Major reasons for respondents to buy Green Food are: it is good for ones health, it is good for their children's health, and organic farming is better for the environment. With pollution getting worse, more and more people will be more than likely to adopt Green Food. People know that health is more important than money - just one serious illness can set people back financially. As people become wealthier, it is likely that more and more people will demand healthier goods even at higher prices although it also needs to be pointed out that in a wealthier society, there will be more choices for all kinds of food, some of which are highly processed and high in sugar and salt. Therefore people tend to overeat and this creates new health problems associated with obesity.

II. Green Products

With the rapid development of the economy, "Green Consumption" has become fashionable. Living "green" has become a symbol of a civilized society. Similarly with Green Food, people's acceptance of Green Products depends on how much they know about them.

1. The Probability that residents will buy Green Products

23% of the respondents said they would buy Green Products if available, 30% would buy occasionally, 15% would seldom buy, 23% would never buy, and 12% did not know what Green Products were. However, since Green Products are more expensive, only high-income earners can afford to buy them regularly. The frequency of purchase matches income distributions in the population. As people's income levels improve, they can be expected to be more interested in Green Products.

2. Reasons for buying Green Products

For those who chose to buy Green Products, their reasons were: better quality, environmental protection, and being a good example to their children. There were also some who chose Green Products because it was fashionable to do so. All these reasons are positive. They may be regarded as pioneer consumers. Manufacturers and government authorities ought to regard them as "Most Valuable Customers".

3. Reasons for not buying Green Products

The primary reasons for not buying Green Products were that the respondents did not know about them and that regular products were cheaper. Some of the residents did not buy Green Products because they did not realize that there was an environmental benefit. As with Green Food, the authorities also need to ensure Green Product labeling is genuine so that people can trust brands. For costs to come down, production scale needs to be increased, which requires more people to buy them. Thus, promoting environmental protection through green consumption is important so that minimizing resource use and creating non-toxic products become the norm rather than the exception.

CHAPTER EIGHT: LITTERING

The littering problem is one of the main concerns facing authorities and environmental protection agencies. There are laws imposing penalties on littering in every city. In Hong Kong, the new littering penalty is now HK\$600, which has been noted by people in the PRD. Imposing a high penalty in itself will not stop littering. People's behavior must be changed, which presents quite a challenge.

I. How often do you see people littering in the street?

Over half (54%) of the respondents said they saw people littering in the street every day, 14% saw people littering several times per week, but there were also 22% of them who seldom or never saw people littering.

Littering is a bad habit developed over time. This is why education and training from an early age is so important. It should also be acknowledged that the poor habits of parents will influence their children. Strict penalties have their place in every society but if the law is not enforced properly or if corruption is involved, then the effect would be compromised. Thus, the focus must be on changing behavior. Public education is vital. The authorities can create more effective strategies to clean up litter but that will always be an end-of-pipe solution. As people become wealthier, it is critical that they do not develop the habit of throwing things away carelessly.

II. Reasons why people litter

People litter because: they are not caught and charged, there are not enough rubbish bins, and people have become used to this type of behavior. The survey shows that full rubbish bins and not realizing the harm of littering are not the major reasons. In other words, people know about and realize the implications of littering but they lack self-discipline and they get away with it because they are not caught and charged.

III. How often do you see people littering in parks or tourist spots?

53% of the respondents said they saw littering "sometimes" in parks and tourist spots, 11% of them witnessed littering every time, 11% of them saw frequent littering, but 20% did not see or notice littering at all. That is to say, a great deal of people (80%) saw or often saw other people littering in parks or tourist spots, which are major public areas.

IV. What might be done to reduce littering?

An effective way to encourage responsible behavior is through educating children at an early age.. To change behavior, public advertising and campaigning on radio and television are the standard ways to send positive messages to the public. Enforcing legislation is essential to make people understand how serious and important environmental issues are.. Many residents believe that the physical act of cleaning polluted areas by those who break the law is an appropriate penalty. Other solutions proposed include placing more rubbish bins in streets and parks and for the government to clean public areas more often. 15% of the respondents were against putting more rubbish bins in parks. They felt there was no need to place more bins because people should behave better by taking the rubbish with them to dispose of properly later. In many developed economies, there are few bins in parks and citizens are expected to take the rubbish they generate away with them. 14% of the respondents were against increasing the penalty.

V. Have you ever littered?

42% of the respondents said they seldom litter, 33% of them never litter, and only 1% said they litter a lot. The results are in conflict with their answers to the question: "How often do you see people littering". This can be explained through psychological means; in answering these kinds of questions, residents may not be totally honest. People realize littering is bad behavior so they may not admit to their own littering. If everyone did what they think is right, the littering problem would be much easier to resolve.

CHAPTER NINE: ANALYSIS OF POLLUTION COMPLAINTS TO THE GOVERNMENT

I. Overall statistics

82% of the respondents have never complained about pollution to the government. Only 17% of them have complained once, several times or many times. 1% said they did not know that they should complain to the government. The data indicates that people are unaware of the fact that they could complain.

II. The reasons for not complaining to the government

Most of the respondents did not know how and where to complain and some did not think the situation would improve. Another reason for not complaining was that some people did not see pollution as a problem connected to their personal lives. The authorities need to do more to inform citizens of how and where to complain. The authorities should provide an open and transparent process for complaints so that citizens can participate more in environmental issues. Moreover, the authorities should take into account that one reason why citizens do not complain may be because they see corruption in the departments. Running away from problems and pursuing for merits can easily happen among government departments. If complaining makes no difference, people will not do it again. On the other hand, if people do not exercise their rights, others cannot help them.

III. Reasons for complaining to the government

The major reasons for complaining to the government are: pollution affects their health, pollution affects their family's health, and pollution affects their work. This suggests that a key reason why people complain is to safeguard their personal lives. However, the negative influence that pollution has on society is not at the top of their minds.

CHAPTER TEN: AUTOMOBILES AND THE ENVIRONMENT

I. Taking public transportation

32% of the respondents take buses, 31% take taxis and 20% travel on bicycles. Others walk, take minibuses or use the metro-system. Guangzhou is the only city with a metro-system, thus only 1% of the samples of the whole area used the metro as their transportation method. Public transportation facilities like buses and taxis are the most frequent form of transportation used (63%). Automobile exhaust emissions cause serious damage the environment. Therefore an efficient public transportation system, which can be conveniently accessed by the citizens, will greatly benefit the environment. Bicycles are pollution free. Transportation and road administrators ought to make arrangements for the convenience of bicycle riders.

II. Private car ownership

Only 13% of the population of the PRD possesses their own car. 87% of them do not but car ownership is rising rapidly with growing wealth. Chinese cities, particularly those in the PRD, can lead the way to develop sustainable mass transportation.

III. If you had a car, how often would you drive it?

If people had their own car or the use of a car, 65% of the respondents said they would choose to drive it every day, 9% would drive several times a week, 5% would drive 1-2 times a week, 3% would drive several times a month and 18% would seldom drive. The question asked was a hypothetical one since most Chinese people do not own a car. If people did own cars, they would drive them more often. The fact that 65% said they would drive every day if they had a car is a clear indication to the authorities that as China grows richer, private car ownership will be a problem. It will require the nation to import more oil and the amount of vehicular emissions will increase.

IV. The reasons not to drive private cars

For the 18% who have cars, the reasons they do not drive are: traffic jams, too much pollution, expensive petrol and high parking fees. It seems to make little sense for those who can afford to buy a car in China today and not drive it for the above reasons.

V. Buying environmentally friendly cars

Governments around the world have their own strategies to promote environmentally friendly vehicles. The Chinese Government is encouraging people who buy vehicles to choose environmentally friendlier ones. Thus, in answering the question: "Will you consider buying a car that meets with environmental regulations?" - 36% said they would seriously consider it, 27% would consider it, 19% would consider it depending on price and cost, 10% did not know what they would do and only 8% would not consider it. There is one further factor to consider in China, however. Right now, smaller cars with smaller engines are restricted from many streets in the cities. These types of cars are less polluting because they have smaller engines. Because of the travel restrictions, they are less popular as they are also harder to sell secondhand. The authorities need to consider how they can develop a more sensible system to provide mobility and protect the environment.

CHAPTER ELEVEN: PARTICIPATING IN ENVIRONMENTAL PROTECTION ACTIVITIES

The degree of public participation in environmental protection activities reflects the environmental awareness level of the people. A high participation rate will greatly benefit the implementation of environmental policies, improving the environment, as well as heighten citizens' environmental understanding.

I. Frequency of participation in environmental protection activities

The survey indicates that most of the residents of the PRD did not participate in any kind of environmental protection activities. Among those who did, the most popular activities were tree planting (38%), visiting a nature reserve (35%) and participating in cleaning campaigns (33%). People who visited environmental facilities, engaged in environmental education activities and material recycling schemes represented less than 15.6% of the total. The results indicated that the level of involvement of PRD residents in environmental activities is relatively low.

II. Factors influencing participation

Among the major reasons for not participating in environmental protection activities 65.9% said they did [not]? (Not sure if they did or did not know much) know much about such activities, 61.6% had no time and 46% said they were "not convenient". Among the major reasons for people who participated, the two main reasons were that they wanted to do something for the environment and that they want to incorporate it into education curriculums for the next generation. For those who wanted to participate but did not know about such activities it was decided that frequent and effective promotion methods should be introduced. Most of the respondents were in favor of engaging in environmental programs and expressed a wish that their children should participate.

III. Participation in recycling schemes

The overall proportion of people who participated in waste recycling schemes was lower than 50%. Among these people, education professionals, like teachers, represented the most active group (close to 50%) followed by students and office assistants. The survey indicates that the participation rate in waste recycling is low.

Waste recycling is one of the most important ways to save energy and other resources. In Western countries, citizens are more likely to take part in the sorting procedure of waste recycling. In China, however, waste sorting is what some people make their living out of. Waste collectors sort through all kinds of wastes and re-sell them for their living. Even though citizens do not quite participate in recycling schemes, the waste collection business will continue. The situation in China is quite different from the West.

IV. Statistics on involvement in tree-planting

March 12th is the Tree Planting Day initiated by Dr. Sun Ya-sin. It is still being promoted by the national leaders today. Tree planting has become a symbol of environmental protection. In fact, people should also pay attention to water, soil, air, animals and plants. What if we plant trees but run out of water and soil? For those who do not take part in tree planting events, they can always participate in many other activities that can contribute to environmental protection.

The investigation shows that people from the education profession are most likely to participate in tree planting (50%), followed by specialists (38%) and office assistants (33%). Few people from other employment sectors take part in tree-planting events.

V. Visiting natural reserves

Individuals from educated backgrounds such as government clerks and students tended to visit natural reserves regularly. Those from other backgrounds or professions such as farming, the military and housewives showed little interest in visiting such places.

VI. Visiting organic farms

Again, those in the teaching profession, students and government clerks visited organic farms frequently but those from unrelated professions such as the military, housewives, retired people and factory workers did not visit organic farms. This information suggests a direct link between the types of education/profession of a person and his or her environmental interest. For example, those who work in factories all day generally earn less and receive less education. Hence they will not be able to appreciate or understand the importance of organic farming and other environmental issues.

VII. Visiting environmental protection facilities

Few of the respondents from each profession (lower than 20%) have ever visited environmental protection facilities like landfills and garbage processing stations. People from Education and highly educated professions i.e. government clerks are more likely to visit such areas. On the other hand, military people and housewives were less likely to visit such facilities.

VIII. Taking part in environmental protection seminars and conferences

Most of the respondents have not taken part in any environmental protection seminars and conferences. Education professionals (37%), students (34%) and government clerks (29%) were the most likely to take part in these activities. But military people, housewives and unemployed people hardly participated.

IX. Residents' satisfaction with government and environment organizations

In general, 47% of the respondents thought that the Chinese Communist Party Departments, government officers, social organizations, and media organizations are doing the bare minimum in highlighting the importance of environmental issues in China. . If we add the proportion of dissatisfied people, more than half of them have said that government organizations and the media have done little to improve and raise awareness on environmental concerns. Only 6% of PRD residents are very satisfied with the government's performance and only 10% are very satisfied with the performance of green organizations. These statistics show that the residents in the region are giving a negative evaluation of the performance of Communist party departments, government officers, green organizations and business organizations. Therefore they are expected to do much more to improve their performance evaluation in environmental protection.

X. The MOST appropriate group the government should listen to regarding environmental issues

More than half (53%) the people think the government should listen to public opinions. Environmental experts (27%) and environmental organizations (13%) were at the 2nd and 3rd place respectively.

XI. The survey on donations to environmental protection

The survey indicates that 83% of the respondents never donated to any environmental protection movements, whereas 15% did. This means that the participation ratio is quite low among local people.

XII. Familiarity with the “Love Country, Cleaning Up” campaign

1. Over 60% of the respondents have not heard about the environmental protection - “Love Country, Cleaning Up” campaign. There is no significant discrepancy among people from different education levels.

2. How residents learn about Clean Up movements

People with different occupations show different levels of knowledge and awareness of Clean up movements. Those who were most familiar were from the education and government sectors as well as people in retirement. People who know least about them were unemployed, housewives and clerks.

XIII. World Environment Day

1. Statistics show that 79% of the PRD residents have heard about the World Environment Day, whereas 21% did not.

2. Who knew about World Environment Day?

The higher the education level, the more people knew about World Environment Day.

XIV. The information source of environmental protection

The strongest source of information on environmental protection for PRD residents was the television, followed by newspapers and schools. Weaker sources of information include social organizations, business organizations and the Internet. This suggests the government should provide more information on environmental protection through various media channels. The reason that people get less information from social organizations shows that they are not yet influential in China. The reason that people receive little information from the Internet may be due to low computer usage among people. .

CHAPTER TWELVE: HOW PRD RESIDENTS SEE THE RELOCATION OF INDUSTRY FROM HONG KONG?

I. General attitude

Since the 1980s, when the open door policy was adopted, Hong Kong started to move its manufacturing industries to the PRD to take advantage of more land and cheap labor. This increased pollution in the PRD. Nearly 70% of the respondents agreed that Hong Kong's industrial relocation brought pollution across the border. Only 18% of them did not agree. .

II. How residents with different education backgrounds see this issue

Answers by residents vary according to their educational levels. People with a higher educational level believed that industrial relocation resulted in increased pollution levels in the PRD. It is clear that educated residents were more concerned about pollution problems than their less educated counterparts who did not believe the problem was serious.