

# China's Environmental Policy Process

A case study of the challenges of creating and implementing air  
pollution policies in China

# Abstract

In this thesis I will study China's environmental policy process and the challenges of creating and implementing air pollution policies in China. The remarkable economic performance of China in the past 20 years has caused its environment a tremendous distress. The Chinese government have created a quite comprehensive legal framework in order to protect the environment, but the implementation is problematic. A different set of policy instruments have been applied, but the political circumstances are undermining their efficiency. The lack of democracy, a closed policy process without public participation, a complex bureaucracy involving extensive bargaining, the lack of authority within environmental protection agencies, the lack of incentives to push for and invest in pollution control systems and the prioritisation of economic profits are factors that challenge and hamper the environmental protection in China.

*Keywords:* Air Pollution, Environmental Protection, China's Environmental Policy Process, Policy Instruments, Chinese Bureaucracy, Economic Development

*Characters:* 70 528

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# 1 Introduction

The Chinese economic history is something extraordinary. During the last three decades the China has experienced an economic growth that has no comparison throughout world history. Hundreds of million Chinese citizens have been lifted out of poverty. The Chinese society has gone from communism and rejection of capitalism to a society where consumption and money are admirable.

The Chinese progressive economic policy has been accomplished at great expense of the environment, not only the Chinese, but also the global environment is paying the price. It has become evident that international environmental concerns have a clear connection to Chinese environmental crisis (Ferris Jr. and Zhang, 2005; 67). The conflict between environmental wellbeing and economic development is a universal phenomenon. China's size, the geographical location and the size of its population separates it from many other nations. China's environmental distress gives global effects, hence becomes an international concern (Oksenberg and Economy, 1998; 356).

The Chinese government has recognised that its environment is suffering and it has taken action. China participates in international cooperation on environmental issues and has a quite comprehensive legal framework and set of policies. Still, the standard of the environment continues to decline and in 2005 China was appointed as the most polluted nation in the world (Veckans Affärer, nr 38, 2005; 20).

Air pollution is the environmental problem that will be addressed in this thesis. Of the world's 20 most polluted cities, 16 are located in China (ibid.). The air pollution is responsible for the premature deaths of at least 300 000 Chinese citizens every year.

This thesis will investigate how the Chinese government is addressing the problems of air pollution and the challenges of implementing air pollution policies. In a time of a changing economy, the Chinese government have turned to the market in order to combine environmental protection and economic growth. I intend to study the different parties involved in the Chinese environmental policy, with an emphasis on air pollution policies.

## 1.1 Aim

The importance of a well conducted Chinese environmental policy system and administration cannot be emphasised enough. When I first decided to study Chinese air pollution policy in order to carry out this thesis my initial question was, *is the Chinese authorities taking actions at all?* This question was soon answered, in fact I was positively surprised by the number of laws and policies created. Nevertheless, the laws on the paper and laws in action are two very different things. Hence, I felt it was adequate to ask a second question, *what are the challenges of creating and implementing air pollution policies in China?* This aims at distinguishing components either facilitating or impeding the process of environmental policy making and air pollution policymaking in particular.

## 1.2 Delimitations

There are numerous of aspects that are important in the study of Chinese environmental policy. Due to limits of time, space and resources it is necessary to limit the scope of this study. It may be difficult to discuss the implementation of environmental policies and laws in general. It may be more interesting to focus on one particular issue. In this thesis the focus are the policies concerning air pollution. The focus on Chinese air pollution policies, and implementation is based partly on the fact that the Chinese government consider it to be one of its most important environmental problems (Ma and Ortolano, 2000; 2). The issue was one of seven priorities within the Chinese Environmental Action Plan for 1991- 2000. Furthermore, the Chinese air pollution is an international concern. The environmental consequences of high emissions from Chinese industries are creating tensions in the region. The importance and the impact of a civil society can be very interesting when discussing the environmental policy process, but this is a subject that is left out in this thesis as well as the financial losses in environmental damage due time - and space limits.

## 2 Method and Material

### 2.1 Method

When asking a, “why” or “how” question, case study is an appropriate method (Yin, 1989; 13). Furthermore, Yin recommends conducting a case study if the researcher has little control of the proceedings which are included in the study, although that is not an individual quality for case study. In this thesis the question concerns a contemporary phenomenon. I, can not in this case manipulate or influence the object in this study, hence case study is a preferable option (ibid.). The exercise of case study is, if not obvious, very likely, when the researcher has the drive and ambition to find, understand and reach an insight of a social phenomenon (Merriam, 1988; 29). For me, when the initial phase was in the empirical stage, case study becomes interesting. Further having the ambition to study and understand the process of policy making and implementation of Chinese environmental policy enhances the motive to conduct a case study. The undertaking of a case study contributes in a unique fashion to the knowledge and understanding of structures in different organisations or systems (Yin, 1989; 14), another quality favouring the application of case study to carry out this thesis.

The application of case study gives the researcher the possibility to obtain and present a comprehensive discussion of a particular phenomenon. The comprehensive characteristic can be both an advantage and a disadvantage for the researcher (Merriam, 1988; 49). In this thesis, it can be an advantage due to complexity of the system that is studied. With complexity I refer to the different factors that are involved with in the policy process and implementation. The lack of clear rules and design of how to conduct a case study makes the researcher a very important “tool” in the collecting of data and the analysis (ibid; 47).

A case study strategy can either be descriptive, exploratory or explanatory. The fashion depends of three different factors. The first is the question of the thesis, the second is the control of the researcher over behaviour or events and the third and last factor is the amount of focus on contemporary as opposed to historical events (Yin, 1989: 16). What, why, who, how and where, are questions affecting the shape of strategy. Questions asking how and why are explanatory and case study is an adequate method (Yin, 1989; 18).

The scientific value of case study has received critique, due to the lack of foundation for scientific generalisation. It is questioned if the explanation of one case can be applied on other events and phenomenon. The critique is not without base, but the advocators of case study can argue for their cause. The supporter of case study argues that the scientific generalisation is not concerning the particular case, rather case studies are “generalizable to theoretical propositions” (Yin, 1989;

21). According to these advocators, the same goes for experiments. One of the purposes of conducting a case study is to “expand and generalise theories” (ibid.). I do not have any intention of generalising. I am merely interested in one particular case.

## 2.2 Material

The empirical collection consists of information from the Chinese official websites (English version) and articles from Chinese newspapers (English version). Further it is necessary to apply non-Chinese sources both due to lack of empirical sources but also due to the lack freedom of speech which may cause the Chinese sources to be very subjective. The non-Chinese sources are adequate literature, articles and reports from the OECD, the UN and The Working Group on Environment in U.S. – China Relations. The last organisation or working group also gives out China Environmental Series since the late 1990’s, in which evaluations and reports on China’s environment and related issues, conducted by Chinese and international researchers are published.

Due to the character of the Chinese regime, it is a very restricted possibility of obtaining reliable Chinese sources. This hinder becomes even greater due to the linguistic barrier. Hence I am to apply a large amount of secondary material in this thesis. The sources of information is multifaceted, in order to conduct a case study it is important that I turn to different empirical sources. The authors of the applied material belong to different scientific disciplines; political science, economics, nature science and so forth. The wide range presents the big picture in which particular factors are more or less important in order to answer the question of this thesis. Furthermore, the different branches of the authors facilitate the opportunity to obtain a degree of objectivity, which is important when conducting a case study. When using few Chinese sources, I risk losing the basic and deep self observed knowledge of such. I believe that I have managed to circumvent this loss by the close relationship that many of the authors and researches of the literature have with China. Further, a lot of the empirical materials are results of cooperation between international and Chinese origin researches.



# 3 Environmental Policy Making in Developing Countries

Environmental policy making is multifaceted. The conflict between environmental protection and financial interests is a significant feature. Environmental policy making and legislation is a more complex process in developing countries than in the developed world (Blackman and Harrington, 2000; 5). The complexity originates from political, economic and institutional restraints (Gamman, 1994; 4). The constant need to develop in developing countries makes their environmental policy making different from developed countries. The economic aspect is a key factor (ibid; 94). The prioritisation of economic interests is a constant feature that will run through several of the policy process's components. It becomes very obvious in chapter five, when China's environmental policy process is discussed. A policy that is designed in an insufficient way, which becomes difficult to implement may cause damage to same environment it was intended to protect. In this chapter different conditions and components concerning environmental policy making and implementation of environmental policies and laws will be discussed. The influence of different interest groups in the environmental policy process will be addressed followed by a discussion of the importance of democracy and transparency within the policy process. What "tools" a government prefer in order to implement its policies and laws are very important (Carter, 2001; 285). Four types of policy instruments will be addressed in the second part of this chapter; regulation, voluntary agreement, government expenditure and market based instruments (MBIs).

The bureaucracy in developing countries may be designed in a fashion that obstructs the environmental policy process (Blackman and Harrington, 2000; 5 and Gamman, 1994; 8). China is considered to have a very complex bureaucracy, which affects the Chinese environmental policy process in a negative way. This will be discussed in detail in chapter five. Imperfection within the bureaucracy and institutional design either give the space or force the political officials to bargain in the policy process. Bargaining can compromise the process and alter the outcome, an influential factor within China's environmental policy process that will be given attention in chapter five.

## 3.1 The Policy Process

In many developing countries the decision making process includes a very critical factor, the culture of closed environmental policy making (Gamman, 1994;

3). During such circumstances it is common that the influence of particular interest groups is enhanced, reinforcing the superior status of economic growth (Gamman, 1994; 3). The authorities are often under a lot of pressure from different parties that often slows the process down (ibid; 8). Very often environmental interests and economic interests are seen as contradictions, the two are not seen as integrated interests (ibid; 8). The fear of hampering the economic growth and putting the political career at risk repeatedly give the economic interests the priority (ibid.).

The short term perspective, which often prevails, thwart the advocates of environmental interests and indirectly the implementation of environmental policies (Gamman, 1994; 37). Furthermore, the economic interests have a strong foundation within the public community (Blackman and Harrington, 2000; 5), enhancing the pressure on political officials to guard financial interests.

### 3.1.1 The Role and Power of Interest Groups

Interest groups are important participants within policy processes. They can be a bridge between the population and the administration (Gamman, 1994; 38). In developing countries the interest groups most often consists of private interest in financial and political sectors (ibid.). In developing countries the institutional framework may open opportunities for financial interest groups to enjoy an unreasonable influence due to the frequent favour of economic development. A scenario that is connected to the problems of closed processes that will be addressed later in this chapter. The interest groups are pro and against environmental protection. The administration most often (rule, rather than exception) needs advice from actors outside the political sphere. A procedure that may invite a variety of interest groups and at length making these interest groups a part of the political process. This situation poses a great challenge to the effectiveness of the policy process and democracy. The influence of interest groups and their loose relationship with political leaders and at length the creation of closed policy making processes may very well be the reason for the failure of environmental policies (Gamman, 1994; 37). The actions of the different interest groups can alter the intended outcome of a policy (ibid.).

Advocators of the financial sector often organise against the good of implementing environmental policy (ibid; 170). The groups that are included in the policy process may become interdependent with the governmental institutions (ibid; 175). In developing countries, it is not unusual that the close relationship between the government, environmental protection agencies and producer groups end up in corruption. China is not an exception (Schwartz, 2003; 69). One example of the influence particular groups may enjoy is the appointment of senior officials in bureaucracies (Gamman, 1994; 10). It is by all means a very favourable position. The importance of a good and stable domestic economy enhances the influence of economic interest groups. In developing countries this factor may be particularly strong due to the quest for economic development,

which enhances the industries' access to the political agenda. Resulting in exclusion of environmental interest groups and giving them a weaker impact on the policy outcome (Carter, 2000; 171 and Gamman, 1994; 38).

### 3.1.2 The Importance of Democracy

Environmental problems are multifaceted and are considered to gain a great deal of democracy within the policy process (Carter, 2001; 281). A democratic policy making process is important to enable a smooth and efficient implementation (Gamman, 1994; 9). One of the foremost arguments supporting that notion is that the public is very important in the implementation process and creation of a sustainable lifestyle and growth (Carter, 2000; 278). The Brundtland Report highlights that the law itself is not enough, the importance of arguing that public participation facilitates the implementation (Carter, 2001; 278). In many developing countries this is not the case. The different parties referred to in the first section of this chapter are political officials who often lack the experience of democratic decision making (Gamman, 1994; 8). Often there is a top level within the bureaucracy who promotes their personal agenda (ibid; 10). The lack of access is further enhanced by the limited information flow that often defines developing countries. The government have a much extended control of what the public is informed of (ibid; 11). In China, the State Environmental Protection Bureau (SEPB) has articulated the advantages of increased public participation concerning the enforcement and implementation of environmental policies and regulations (Lo et al., 2000; 313).

### 3.1.3 Closed Policy Process

The structure of closed decision making tends to rule out advocates of non-conventional interests. Advocators in favour of environmental protection are considered to belong to the later (Gamman, 1994; 13), a structure that tend to create great disadvantages concerning implementation of environmental laws and policies. Hence, it should not come as a surprise that lack of democracy within the policymaking permit, if not create, environmental damage. The public exclusion from participation eliminates the liability in the environmental regulatory process (Lo et al., 2000; 306). The lack of citizen's trust in the ruling party due to the closed decision making process may create obstacles in implementing policies, including environmental protection policies (Gamman, 1994; 12). A democratic policy process is not an assurance of sustainable development (Carter, 2001; 280), but to have planted the ideas resulting in the policies should create advantages. Unfortunately, many governments in general are reluctant to extend the public participating in the policy process, especially concerning environmental issues (ibid.). The existence of closed policy processes is a great problem in it self, but it does also reproduce undemocratic values within the administration and the public community. Closed policy processes exist in developed as well as in developing

countries. In developing countries the problem may be more obvious, lack of democratic tradition and values (Gamman, 1994, 8). An undemocratic or semi-democratic state, where the government actively, controls the information flow limits the possibility for the population to participate. It may be easier for a government in a developing country to peruse a closed policy process because its' populations primary interest is economic development. When the state supports the arrangement of a closed political process it is establishing a structural power of industry groups, allowing them to become powerful in the setting of the political agenda (Carter, 2001; 177). Political officials are continually overruling professional advises and ruling in the benefit of economic interests (Gamman, 1994; 12). The reasons for upholding a closed policy process are many, one is the fear that environmental protection will slow down the national development. Another is that political appointees do not want to risk their careers, therefore they prioritise short term issues, for example economic issues (ibid: 14).

#### 3.1.4 The Disregard for Environmental Issues within the Policy Process

There are basic circumstances that reinforce the practice of disadvantaging environmental policy making (Gamman, 1994; 14). The first condition concerns the national political leaders' extended control over a closed public policy process (ibid.). The second condition concerns the status of environmental interests in relation to economic interests. Economic interests prevail in the majority of the cases (ibid; 15). Very often there is a lack of economic incentives for protection of the environment, further enhancing the difficulties of environmental policy making. The third condition concerns the government's strategy. It is common that the government lacks the strategy to properly implement environmental policies (ibid.). The strategic weakness can be due to lack of experience of environmental protection (ibid; 16). Imperfection within the bureaucracy is one important circumstance that may be related to the lack of experience. New institutions with inexperienced staff in combination with policies designed in an indistinct fashion (ibid.). One very important factor creating difficulties in the implementation of environmental policies are the fact the policies are designed by the national government, but the implementation is the responsibility of regional and local governments. The later two often have insufficient funds and will in order to manage this responsibility (ibid; 18).

## 3.2 Policy Instruments

The policy instruments are very important in the implementation of policies. The instruments should be effective, educational and enforceable (Carter, 2001; 285). According to Carter, the choice and application of policy instrument is a very political procedure, involving the influence of many different interest groups. Regulation, voluntary action, government expenditure and market based instrument (MBIs) are the most common instruments regarding environmental policies (ibid). Traditionally, governments apply regulation; they put their trust upon compliance with the law (ibid.). Perhaps due to the complexity of environmental problems regulatory instruments have been insufficient and widely criticised. During the past twenty years market based instruments have gained a wide range of advocates (ibid.).

### 3.2.1 Regulation

This instrument aims at by governmental law or policy force the public to act in a specific fashion. A very good and clear example of the use of regulation is pollution *emission* controls, specific *designs* of pollution-control technology and *ambient* pollution standards (Carter, 2001; 286).

Regulation is a popular policy instrument, and has for a very long time been the most common instrument (Carter, 2001; 286). Many policy makers rely on the regulatory tool to be effective, precise and predictable (ibid; 287). In reality that concept has failed and regulation has confronted organizational problems. The ability among the pollution producing companies to reduce their emissions differ (ibid; 295). The informal structures that are the case in many societies are often favouring the fiscal interests, creating obstacles in the regulatory administration (ibid.).

Regulation have suffered implementation problems due to weak regulatory regimes, the time consuming factor and insufficient financial possibilities (ibid; 280). The responsibility for implementing environmental regulations and policies are often delegated “downstairs” the bureaucracy, increasing the economic shortcomings and lack of authority (ibid; 281). A complex and or underdeveloped authorial structure may increase the dilemma. Further this instrument does not provide any incentive for producers to lessen their pollution production (ibid; 295).

### 3.2.2 Voluntary Agreements

Voluntary agreement is an instrument very suitable for individuals and enterprises (Carter, 2001; 293). This instrument is not ruled by law. Instead voluntary

agreement shall be motivated by the desire of a more sustainable development. This instrument benefit on governmental promotion and education (ibid.), a basic level of knowledge may be required. Concerning the industries' motives to apply voluntary agreement are often based on the desire to increase the economic profit (ibid.). When companies are parties of voluntary agreement they are provided with good publicity. Environmental agreements involve a number of benefits for the industries since they themselves may decide how to fulfil the agreement. In developing countries, rewarding good examples with good press has proved effective (Rock, 2002; 90). Due to the lack of force concerning this instrument, implementation may be difficult (Carter, 2001; 294). There is often a gap between the number of producers involved in voluntary environmental agreements and the number of producers that actually are taking actions to fulfil the agreements (ibid.).

### 3.2.3 Government Expenditure and Programs

The traditional profile of government expenditure is a subsidy aiming at promoting a cleaner production strategy. The target is naturally pollution generating activities, such as producers, farmers and individuals. Individuals are an important part due to the substantial pollution emission from coking and heating (Carter, 2001; 294). Government expenditure can play a very important part in creating a sustainable lifestyle and development. The government can state an example. Unfortunately, it has proved to be difficult and in many cases the governments does not push enough to accomplish the changes (ibid.).

Government expenditure as a policy instrument is often very costly, the necessary economic input in public programmes are often so high that despite a potential positive output, many governments hesitate (ibid; 295). When carried out in a successful way, the government sponsored programmes may motivate a more sustainable lifestyle and create new employment.

### 3.2.4 Market Based Instruments

Market based instruments (MBIs) are designed and intended to provide incentives for pollution producing activities that the regulatory instrument fails to deliver (Carter, 2001; 295). MBIs are intended to prevent market failures (ibid.). MBIs include the application of polluters pay principle (PPP). It means that the final price of a good is to include the cost of pollution generated by the production. Advocators of MBIs argue that not only are MBIs more effective than other policy instruments, they creates a revenue that is possible to invest in environmental protection (ibid; 297). Examples of MBIs are tradable permits and eco-taxes (ibid.).

Eco-tax is a levy imposed on pollution producing sources and the pollution itself. This instrument provides the producer with the flexibility to decide how much it is willing to reduce its pollution, knowing the tax rate. Carter (2001)

argues that this makes eco-tax more effective than the regulatory instrument (296). Furthermore, taxes can serve an educational purpose.

Tradable permits combine economic motives with regulation (Carter, 2001; 296). As with eco-taxes the national government articulates an ambient level of pollution emissions. The maximum level is split up into individual emission permits. Each emission permit includes the owner's right to release a maximum level of emission. The permits are traded among polluters. The polluters can sell the surplus pollution and make a profit, giving the polluters economic incentives to decrease their emissions (Carter, 2001; 297). One important factor included in the system of tradable permits is the possibility to decrease the emissions in the most cost-efficient way (ibid.). Compliance can be cheaper. Hence, it is more likely that polluters will comply.

MBIs encounter a dilemma, in theory they are very good, but in combination with real polluters, correct information about the pollution generating activity is necessary in order to set the appropriate levy level (Carter, 2001; 298). The transfer of correct information is arbitrary, causing the levy to be either too low and not creating the economic incentives, or too high and not creating the will among polluters to take part, compromising the efficiency of taxes and MBIs (ibid; 299). MBIs put a lot of trust and responsibility on the polluters, who unfortunately may withhold the truth in order to save money (ibid.). The doubt surrounding the use of MBIs is causing non-application and no experience (ibid; 301). Furthermore, the MBIs are accused of being politically discriminating (ibid.).

This chapter have presented the environmental policy process, important components and policy instruments affecting implementation.

## 4 Chinese Air Pollution

In this chapter the problem of air pollution itself will be introduced. Air pollution problems are not a phenomena of developing countries, it exists in spite of the economic standard (Edmonds, 1994; 158). The consequences of severe air pollution are numerous and for the human health it can be mortal (ibid.). In this chapter the major sources of air pollution and the Chinese legal framework concerning air pollution will be presented.

### 4.1.1 Urban Air Quality

Of the world's twenty "dirtiest" or most polluted cities, 16 are located in China (Veckans Affärer, nr 38, 2005; 20). Beijing has highest level of pollution among the capitals in East Asia (Rock, 2002; 144). In Beijing the smog is extreme, making parts of the city invisible. The key type of air pollution in the Chinese urban areas is the particulate pollution, it originates in the coal consumption (Edmonds, 1994; 160). The extensive particulate air pollution is causing serious smog, a very alarming and evident sign of the environmental distress (Economy, 2004; 71). Several tests of the air quality in urban areas in China have been conducted. It is reported that more than 60 percent of the examined cities failed The World Health Organisation's recommendations. The majority of the larger Chinese cities' air pollution levels are two times as high as the levels recommended (Rock, 2002; 107). The air pollution is responsible for the premature deaths of at least 300 000 Chinese citizens every year (Veckans Affärer, nr 38, 2005; 20). A report says that "women living in certain industrialised areas in China are reported to have the highest rates of lung cancer ever recorded in the world" (Cann et. al, 2005; 7).

### 4.1.2 Sources of Air Pollution

Coal is the major source of energy in China, as the progressive economic development was initiated the consumption of coal increased dramatically (Edmonds, 1994; 160). The high consumption of coal is a significant source of air pollution production (He et al., 2002; 398). The story goes that during the 1970s Chinese cities suffered so badly from the air pollution producing coal that the air was described as "rolling black smoke" (ibid; 405). As alternative sources of energy have been promoted and applied there have been a slight reduction, but China is still the largest consumer of coal. The economic growth stipulates a challenge; the Chinese population's possibility to consume is increasing much



faster than the supply of alternative fuels and the development of infrastructure. It is estimated that the number of motor vehicles are ten times the number twenty years ago (ibid; 412). The improvements made within particulate pollution control are offset by the increased consumption (Edmonds, 1994; 161).

Cooking, livestock and fertilizers are three important contributors of urban air pollution. An extensive urbanisation is contributing to the urban air pollution problems. The high demand of housing is creating a market for cheap and toxic construction material, cheap material (ibid; 416). The emissions of coal are also one of the dominating contributors to the global climate change, which is the number one priority of global environmental issues in Chinese politics. The global climate change will not be addressed in this thesis, however the international pressure has been important for the process of environmental protection in China, the Chinese government is reluctant to admit that.

## 4.2 Air Pollution Policy Framework

In the late 1970s environmental issues became interesting to the Chinese authorities and a wide range of actions were adopted in order to address the environmental degradation (Ma and Ortolano, 2000; 8). China has designed the most progressive legal framework of environmental protection in the region (Ferris and Zhang in Day, 2005; 67). Despite this, the quality of the Chinese environment is degrading. There is a gap between the intentions of the Chinese laws and policies and its environment's state (Ma and Ortolano, 2000; 8).

The policy making process of environmental issues within the Chinese authorities is composed of three significant political bodies (He et al., 2002; 400); the Environment and Recourses Protection Committee (ERPC) of the National People's Congress (NPC). This body is responsible for environmental protection policy making, legislation and monitors the enforcement of just mentioned (ibid.). Another important political body is the State Environmental Protection Commission (SEPC) of the State Council. The SEPC's responsibility includes policy drafting, outlining of environmental protecting laws and regulation. The State Environmental Protection Agency (SEPA) is the last of these three political bodies. SEPA was created in 1988 by the Chinese government as a step in the process of administration and enforcement of the new environmental protection policies (Ma and Ortolano, 2000; 8). SEPA, whose field was the entire country was upgraded in 1998 to the status of ministry and took over the responsibilities from SEPC that was closed down (ibid; 60). SEPA is superior to the Local Environmental Protection Bureaus (EPBs). The later operates at province, municipality and city levels (He et al., 2002; 400).

### 4.2.1 Environmental Protection Legislation

In the 1970s Chinese authorities introduced an air pollution monitoring system, in 1978 the protection of the environment was included in the constitution as one of the most fundamental obligations to the Chinese people (Rock, 2002; 84). In 1979 the Environmental Protection Law (EPL) was enacted. It is the oldest law aiming at environmental protection in China (Ferris Jr. and Zhang 2005; 76). This law was designed in a general fashion. Pollution was the focal point of the law (ibid.). Ten years later a second environmental law was enacted; the Environmental Protection Law of 1989 (EPL 1989). The two Environmental Protection Laws constitutes the base for the present pollution management programs (Rock, 2002; 84). In 1987 China's first specific law on air pollution was presented. The Law on Air Pollution Prevention and Control of the People's Republic of China (LAPPC) was agreed upon by the NPC (He et al., 2002; 400). This law was much more detailed and included the obligation of pollution producers to follow national standard of pollution emission. In 2000 the law was revised, its content and effects of non-compliance became much more stringent. A number of policies, regulations and laws concerning air pollution prevention followed the LAPPC throughout the 1980s and 1990s (ibid.). In 2002 China introduced the Cleaner Production Promotion Law, a preventive law targeting the Chinese industries (Mol and Carter, 2006; 164).

The air pollution monitoring system in China that originates from the mid 1970s is a very important part of the present legal framework of environmental protection (He et al., 2002; 400). The results from the monitoring sites are public records proving the Chinese public with information as often as every day in certain cities (ibid.). The reporting system serves an educative function, which is very important when aiming at a more sustainable development (Carter, 2001; 280). During the 1980s Chinese authorities began to invest in the environment. The investments included environmental infrastructure, implementation of promotion and research programs aiming at the urban air pollution, cleaner production technology and natural gas pipes. These actions were financed by domestic and foreign capital. Furthermore, the Chinese received technical aid from international organisations such as the World Bank and the United Nations etc (He et al., 2002; 400).

Motor vehicles are significant contributors to air pollution in China. China has laws addressing the use of these vehicles. During the 1990s the regulations of these vehicles were developed, almost twenty standards were enacted (He et al., 2002; 422). The regulations and standards target the production and use of motor vehicles and have resulted in improvements (ibid.).

The high consumption of coal and its severe effects for the air have made the Chinese authorities to adopt a number of regulation and policies to decrease the use of coal and to make the use of coal cleaner (He et al., 2002; 421). The Law on Air Pollution Prevention and Control of the People's Republic of China (LAPPC) from 1987 includes articles concerning the use of coal (ibid; 400).

As this chapter illustrates in a very general way, the Chinese authority has created a legal framework to address the environmental distress. Lack of policies, regulations, laws and programs are not the problem. Hence it becomes interesting

to study the policy making process and implementation process to seek for the reasons behind a continued environmental degradation.

## 5 Chinese Air Pollution Policy

The Chinese government has articulated its concern regarding pollution since the 1950s, it participated at the United Nations Conference on the Human Environment in Stockholm in 1972 and followed it up with a conference on air emissions control in Shanghai in 1973 (Rock, 2002; 83). The Chinese pollution policy has from the start been characterised by “the polluters pays” (ibid; 84). This principle makes it quite clear that it is the source of the pollution that is important to the authorities. Thus there was a vision within the Chinese government that the Chinese enterprises were responsible and not the authorities. Important to note is that “prevention first” shows an interest in preventing the pollution (ibid). The reality will be illustrated in this chapter. During the late 1970s and the beginning of the 1980s the government understood that it needed to strengthen the environmental protection policies.

The fact that Chinese environmental problems have become an international concern “forced” environmental issues to be addressed by high-level officials (J. Ferris Jr and Zhang, 2005: 66). The growing consumption of energy, the Chinese dependency on coal in combination with an increasing number of vehicles is putting great strain on the Chinese atmosphere. In the urban areas, the burden has become a matter of emergency and the Chinese government have been forced to undertake a framework of air pollution prevention (He et al, 2002; 398).

When addressing the Chinese environmental policy process and air pollution policies it is inevitable to consider the importance of economic interests and foreign economic investments in China. According to Rock, the success or failure of pollution policies is a local phenomenon (Rock, 2002; 83). Trade off between environmental protection, pollution prevention and fiscal interests is a constant feature in the policy process (Lo et al., 2000; 314). The influence of different interest groups in environmental policy making and the implementation process China will be discussed. Furthermore will the policy instruments applied by the Chinese government be addressed.

### 5.1 The Environmental Policy Process in China

It is well known that the Communist Party in China is not elected by the Chinese population through democratic elections. Neither are the political appointees participating in the environmental policy process (Lo et al., 2000; 306). The process is not open to the public; it is a closed policy process ruled by bureaucrats without any public consultation or insight (ibid; 308). The three major actors

within the Chinese environmental policy process are; the government, the environmental protection institutions and the Chinese industry (Schwartz, 2003; 69). The public's exclusion damages the liability of the environmental policy process. The public mistrust is seriously harming the implementation and enforcement. Furthermore, the closed process facilitates the bureaucrats on the expense of the community's interests (Lo et al., 2000; 312).

### 5.1.1 The Chinese Bureaucracy

The Chinese bureaucracy is quite complex and it is argued it aggravates environmental policy making (Mushkat, 2004; 43). At the same bureaucratic politics is the single most important aspect of Chinese policy making (Rock, 2002; 83). The strong norms of authority do not encourage cross-disciplinary and cross-territorial thinking, which are two important factors in environmental policy making (Carter, 2001; 169). Hence, the design of the bureaucratic system may prevent a well functioning environmental policy system. During the period of environmental law making, re-delegation of authority down the ladder within the bureaucracy was important (Rock, 2002; 85). Despite reforms within the bureaucracy, the local environmental protection bureaus (EPBs) have had problems making the local enterprises comply.

The aim of making the environmental policy process more efficient through the re-delegation of authority have caused a negative side effect, i.e. the bargaining within the bureaucracy concerning environmental protection (Rock, 2002; 87). The bargaining has become a necessary part of the policy process. Bargaining is also related to justice. All parties affected by a decision are to participate in the pre-decision consultation in order to secure the ability to fulfil their duty. The participation does not automatically give power, fairness is a subjective term (ibid; 89). Furthermore, political officials at all administrative levels are bargaining in order to secure their "power" in relation to other officials (ibid; 88). The process of decentralisation and liberalisation is not complete. Hence, the political officials need to bargain how to implement laws and policies in order to manage the environmental protection and the promotion of economic growth on a new more competitive market (Rock, 2002; 88). The local governments must care for the local companies due to the significance of tax revenues and the local labour. An important consequence of decentralisation is that the central government does not finance the local governments, giving them a hard time "forcing" the local governments to implement new policies, hence, bargaining is the best they can do (ibid; 112).

The informal structure of politics which is a significant feature of the policy process is an obstacle in the environmental policy process. The informal structure challenges the formal environmental protection institutions and undermines their efforts (Lo et al., 2000; 312). The informal policy process makes the final decisions and determines the outcome the formal process (ibid; 313).

On the following page is Figure 1, a model showing the way that a policy must travel before becoming official. The boxes represent the different actors

involved in the environmental policy making process. As the picture shows, the bureaucratic system concerning environmental questions alone is quite complex.

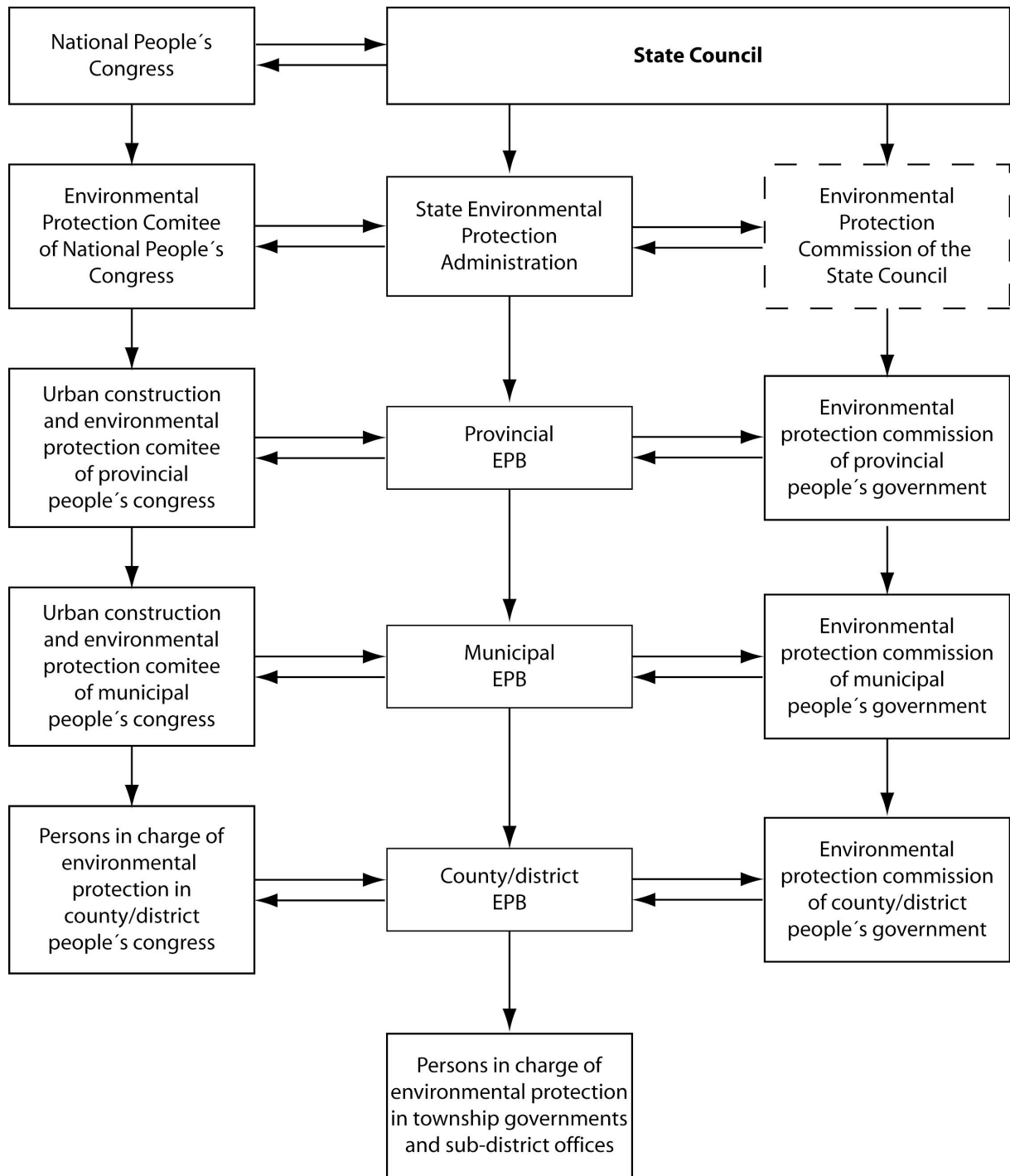


Fig. 1 (Ma and Ortolano, 2000; 56) Organisational Structure for Environmental Protection in China

### 5.1.2 Lack of Democracy – The Beginning of Democracy

The discussions above show the lack of influence of particular groups and the opposite of other groups. The structure of closed decision making and control of information flow in China are not only complicating the implementation process but also composes challenges to democracy. In China democracy is not a right of the people, but one important change is taking place. The advantages of making the environmental policy process more open to the public have been recognised. In present China former classified material have become available to the public (Ferris and Zhang, 2005; 83). The Chinese media is becoming more financially independent. Hence they can be more critical and investigative in their reporting, including issues that are sensitive to the Chinese Communist Party (Carter and Mol, 2006; 331). Concerning environmental issues this development can be seen in the media's coverage of natural resource disasters. The media does not only report the actual incident, but also the reasons causing the accident. That may include highlighting imperfections within the governmental system. Furthermore, the media is reporting of pollution emissions exceeding maximum standards, informing both the public and the national government. The increase of local media reporting has resulted in a more open dialogue on environmental questions, including air pollution problems (Lo et al., 2000; 314). Unfortunately are there examples when the risk of negative publicity due to exceeding pollution emission also works against the environmental best.

A decentralisation of power is taking place in China (Carter and Mol, 2006; 333). This may be interpreted as a step in the right direction, but it also creates complications within the policy making process due to unclear distribution of power and authority. One important positive factor is associated with the decentralisation. Local officials are under public supervision and they are within reach for public complaint as they are the responsible for environmental protection within respective region. This development has brought awareness within the local governments, hence created incentives to act on behalf of the environment (Rock, 2002; 82).

There is a political institution that can work as a bridge between the bureaucracy dominating the policy process and the public; The Local People's Congress. It collects the public's opinion. The aim is to make the public a part of the environmental policy process (Ma and Ortolano, 2000; 58). The true impact of the public is another thing.

### 5.1.3 The Status of Environmental Protection

A positive development has accrued in China. Today, many Chinese organisations are willing to participate in the efforts of environmental policy making (Ferris and Zhang, 2005; 90). The State Environmental Protection Agency (SEPA) is equivalent with a ministry, and is the top political organ below the State Council (Ma and Ortolano, 2000; 56). However, there is a considerable difference between what SEPA and the local environmental protection bureaus (EPBs) are authorised

to do and what they can do in reality (ibid; 116). The ability and will of SEPA and EPBs to act differ among the provinces, municipalities and counties in China. Factors such as the level of economic development, the local governments' dedication to environmental protection, the influence of financial interests in the environmental policy process and so on (ibid; 55 and 117). Very often do the local governments ignore the advice from SEPA in favour of financial interests (Lo et al., 2000; 314).

It is not uncommon that the local governments lack the appropriate skills of outlining environmental regulation. Hence the EPBs are given an influential part in that part of the process (Ma and Ortolano, 2000; 58). The EPBs' regulation must be approved by the local government that most often discusses the proposed regulation with different interest parties (ibid.). The different parties are often representatives of the financial sector. The EPBs are responsible for the enforcement, but they are under the local governments supervision (ibid; 59). The EPBs are active at provincial, municipal and county level (ibid; 56) and are under different level of supervision.

There is a sophisticated bureaucracy within the EPBs through which all matters are to be delegated in the proper order (Ma and Ortolano, 2000; 58). The EPBs on municipal and the county level are responsible for the companies at respective level. This system "forces" the EPBs and the companies into a close relationship. The number of environmental officials, agencies and offices has been increasing much faster than the public financing have caped. The continuing shortage of financial resources make the profession of environmental protection unattractive, hence it becomes difficult to find qualified staff (Rock, 2002; 86). The EPBs receives funds from the local government, but the majority of the funds comes from the pollution emission fees, hence the collection of the fees and the fee in itself is very important (Ma and Ortolano, 2000; 62). It is in the interest of the EPBs to collect as much pollution emission fees as possible in order to finance its operations, a troublesome motive that may compromise the process. Consequently, the EPBs become dependent of the enterprises (Rock, 2002; 87).

It is cheaper for the enterprises to pay air pollution emission fees. The fees are set lower than the costs for investments in cleaner production. The local EPBs make more money on the emission fees than if the enterprises were to invest in cleaner production. The local governments are depending on the tax revenues from local enterprises, including the air pollution emission fees. There is a clear lack of incentives for environmental protection within the local governments, the environmental protection agencies as well as within the Chinese industries (Mol and Carter, 2006; 155). The closed decision making process and the exclusion of the public in the environmental policy making hamper the environmental protection and contributes to the modest success of Chinese environmental policy implementation (Rock, 2002; 110).

## 5.2 Policy Instruments in China



The choice of policy instruments is significant to the policy process' outcome (Carter, 2001; 285). The main features that the instruments should own are effectiveness, educative function and enforceable (ibid). The policy instruments that are discussed are; regulation, voluntary agreement, government expenditure and market based instruments (MBIs).

### 5.2.1 Regulation

Regulation is the most common applied policy instrument, which also was the first policy instrument applied by the Chinese government in 1979 when the first Chinese Environmental Protection Law (EPL) was established (Ferris Jr and Zhang, 2005; 76). The centrally planned economy in combination with the strong position of the state and importance of politics made regulation the preferable policy instrument (Economy, 2006; 173). I introduced three traditional examples of regulation; emission control, specific design of pollution control technology and ambient standard (Carter, 2001; 286). All three are exercised by the Chinese government.

China has applied environmental regulation in since late 1950s. Pollution controls have been adopted within the Chinese policy process since 1956, revised in 1962 and 1973. Although, it was not until 1979, in accordance with the EPL that pollution control became more complete and rigorous (Edmonds, 2000; 180). During the 1980s a decrease in the pollution emission was noted, unfortunately the positive development had its origin partly in the removal of large pollution sources from urban areas to the rural areas (ibid). A measure promoted in modern China, not only by the industry itself but also the local government in their attempt to impress the central government with a "clean" city. The relocation also brings cheap labour. Old and or large scale Chinese industries have to a large extent been excluded from the governments' demand on pollution control. The regulation has been applied much more aggressive towards new factories (ibid.). Hence older factories that might stipulate even a greater risk to the Chinese environment have been exempted. Despite investments in air pollution regulation systems, the pollution emission does seldom meet the standards (Mol and Carter, 2006; 154).

In 1987 the Air Pollution Prevention and Control Law was passed, it has been revised in 1995 and in 2000. This law includes all three of the three traditional regulatory styles (Ma ad Ortolano, 2000; 17). There are considerable challenges with enforcement on the local level. Local governments have shown a modest interest in making sure the national laws are complied. There are situations when the local environmental protection bureau (EPBs) have fined enterprises for violating regulations, but the local governments have given the same enterprise a tax break in order to avoid economic setback. Officially both the local EPBs and the local government have fulfilled their duties, i.e. the EPB has filed a ticket due to non-compliance and the local government has protected income and local jobs (ibid; 63), i.e. informal politics obstructing the environmental policy making (Lo et al., 2000; 312). Half of the Chinese industry is outside of the EPBs' control

(Carter and Mol, 2006; 334). Hence, a lot of space for air pollution regulation failures exists. It is more problematic to be in conflict with the administration than with the law (Mol and Carter, 2006; 157).

## 5.2.2 Governments Expenditure and Programs

One of the major factors contributing to the severe air pollution problems in China is a large population consuming large amounts of coal. The Chinese government has been aware of this dilemma since the 1970s and addressed it in the 1980s by introducing subsidies (Edmonds, 1994; 184). The prices of coal in China were too low (ibid; 185). Governmental regulation and adjustments of the price of natural resources was a natural action, however, it was significant to proceed in a modest pace to avoid economic disorder. Subsidies for air pollution control tools have been used since the 1980s. This governmental expenditure has been important for industries in their attempts to decrease the pollution emissions (ibid). The subsidies involve refund of pollution charges to industries, governmental funds for technical transfer and restoration. Enterprises can take soft loans to finance an environmentally friendly businesses (ibid; 186), however many banks are reluctant to lend money for that purpose. The Chinese government offer reduced taxes for pollution control development and recycling.

The National Environmental Model City programme is one China's most important attempts to stress the ability of local officials to combine nursing of economic development and environmental protection (Economy, 2006; 178). It originates from an agreement with Japan in 1997 (ibid.). It is a very interesting attempt as the local pollution politics is determining the fate of pollution control (Rock, 2002; 83). In this programme another programme is applied as a tool; the Urban Environmental Quality Examination System (UEQES), designed and administrated by SEPA, implemented by the EPBs at city level in cooperation with respective mayor and city level environmental protection commissions (ibid). It is a programme that in quantitative measures account a city's combined score of different environmental indicators, including air pollution emissions (ibid; 89). Each city in the programme is ranked in accordance with its combined score and the list is published. This is a way for the local government to in public either salute a city for its good environmental management or publicly embarrass it for the contrary (Economy, 2006; 179). Up to today the information of the UEQES' outcome is meagre, but Rock (2002; 85) is positive. Since the introduction of the programme in some of China's large cities the ambient environmental quality have either improved or not declined (ibid. and 99). Actually there are numbers showing that through active efforts the air quality has improved. Furthermore, studies from other developing countries have showed that public debate can have an important effect on the polluters' behaviour (ibid; 90). Other reports show that the desperate search for prestige and good score are making the most polluting enterprises dump their pollution in the rural areas (Economy; 2006; 180).

Unfortunately, the improvements made in environmental infrastructure, pollution discharges programmes and in pollution controls are insufficient in comparison to the economic development and action (Rock, 2002; 106). Despite the lack of success within the programme, officials of the EPBs are still positive due to the increased public environmental awareness, the increased interest in environmental protection and cleaner air (ibid.). Another important factor brought by the National Environmental City Programme is the involvement by the mayors.

### 5.2.3 Voluntary Agreements

The majority of the Chinese enterprises have not recognised the economic benefits of environmental consideration in the production process (Economy, 2006; 181). A study of the attitude of large Chinese enterprises showed that very few, i.e. only 18 per cent agreed in an association between “good environmental practice” and economic profit. During 2004 and 2005 Chinese export of goods suffered due to contamination, particularly food goods. It became clear that action was necessary (ibid; 180). Due to the lack of commitment to environmental protection among the domestic companies, political officials turned to foreign international enterprises to state good examples (ibid; 181). In exchange for the efforts, the companies received very good press and occasionally also some type of reward. Voluntary agreements between the national or local governments and enterprises have proved to be very popular. Many foreign enterprises have accepted the challenge of raising the environmental standards and actively supporting the national government in its environmental campaign. This project is good publicity for China in its efforts of attracting foreign investors that need to know that their factories in China can fulfil some level of environmental protection in the production (ibid.). There are companies that are cooperating with Chinese environmental officials aiming at incorporating environmental constructiveness with the production of competitive goods (ibid; 182). Lack of will remain as an obstacle in the efforts of protecting the environment. Moreover, there are several international companies that are attracted to China due to the weak enforcement of environmental protection policies, creating strong incentives for local governments not to raise the level of environmental standard, making the pollution control system more stringent or push for cleaner production (Economy, 2006; 183). The lack of force concerning this instrument complicates implementation (Carter, 2001; 294). It all comes down to dedication and trust to the link between environmental care and economic profit (Economy, 2006; 183).

### 5.2.4 Market Based Instruments (MBIs)

When the Chinese environmental policy making suffered repeatedly failures with the regulatory command and control system, policy instruments that originate in the economic dimension became interesting (Economy, 2006; 174). The development in favour of economic instruments included a decrease in the use of

subsidies. The government acted in order to avoid market failures; hence the prices of goods were to include the negative extern costs, air pollution for example (ibid). The exercise of MBIs delegated a partial responsibility for environmental protection from the local governments to local companies (ibid). Insufficient budgets and staff made a delegation of responsibility for parts of the environmental protection to the market is a positive change. How the environmental protection is effected is still to learn.

The Chinese bureaucracy is considered to be quite complex and the new bureaucratic order as a result of the reforms during the 1980s and 1990s in combination with the introduction of market oriented set of policy tools have not been uncomplicated (Economy, 2006; 175). Conflict of interests between market representatives and regulatory agencies, governmental administrations at different administrative levels, and environmental protection administrations and equal rank governmental departments is one source to the modest use of MBIs. Insufficient institutional ability is an additional factor (ibid).

The introduction of tradable emission permits is a very clear effort by the Chinese government to take advantage of the transformation of domestic economy by incorporating environmental protection into the market (Economy, 2006; 184). It is foremost SO<sub>2</sub> and acid rain that are causing grate damage. Two control zones were set up in 1998 by the government in order to control the emissions of SO<sub>2</sub> and the subsistence of acid rain (ibid). At the same time the Chinese authorities set off a policy; Total Emission Control (TEC). The policy included that the government every year could put a ceiling on the sum of emission all through China (ibid; 184). The total sum of emissions was divided among the different territories in China and the responsibility for the practice was delegated to the local governments and the sources of pollution emissions.

There are different opinions concerning the impact and use of tradable emissions permits. Those who are pro argue that it is the most economically proficient tool. Industries that have the ability to lower the emissions can do so, while those that cannot, can buy permits (ibid). The advocators claim that the system is extremely cost-efficient (Economy, 2006; 185). Others argue that the design of the Chinese system for tradable emission permits opens up for non-compliance and misjudgements (ibid; 186). The system suffers from severe deficiency. The organisation of measurement and gathering of data is inadequate; the monitoring system is very primitive and much of the information is closer to estimation than exact figures (Economy, 2006; 185). Furthermore, the system is depending on a functioning implementation and implementation. The system has also been criticised for the short timeframe and the lack of transparency.

Green GDP was introduced to the local Chinese authorities in 2004 as a policy instrument to integrate the environmental protection with the economic development (Economy, 2006; 176). This was the second attempt to apply the concept of green GDP. The first attempt was in 1994 but the interest was insufficient. Green GDP aims at uniting the search for economic development and the respect for resources and environment (ibid.). The concept of green GDP has been embraced by several local officials, which is a positive development. Furthermore, it has been proposed that green GDP is to be one of the criteria in

the process of evaluating the performance of local officials. According to a survey; the GDP for China during the past decade would hardly have grown if green GDP had been applied (that the cost of environmental damage had been included) (ibid). The use of green GDP can serve the local officials' interests, hence one more motive to apply it (ibid; 177). Too many local officials are still doubtful; the green GDP will probably cause a decrease in the GDP and give bad publicity and embarrassment. The green GDP does not include costs of healthcare needed from pollution and it is difficult to put a price of natural resources (ibid). The price of resources harmed by air pollution may be particularly difficult. The promotion campaign of green GDP has brought increased awareness among the public, a very valuable development.

There is an increasing interest among local political officials for market based instrument. Investments in research and development of the MBIs are taking place. Unfortunately there is still a lack of proper equipment, genuine interest in environmental protection and human competence within the local governments and local environmental protection agencies. Furthermore, the financial shortages continue to hamper (Economy, 2006; 186). Still the means and incentives for Chinese enterprises to lower emissions and invest in cleaner production are insufficient (ibid; 187). In order for the MBIs to have an impact in China, environmental policy making, implementation and enforcement must improve.

## 5.3 Economy vs. Environment

### 5.3.1 Decentralisation – Aiming at Economic Development

The decentralisation of power in 1980s gave a new position with more prestige of local leaders and officers. The new authority also placed them in a situation of the public's interest, national and local. An extended responsibility of economic and social performances in respective region was delegated to the local governments. Very often local governments support industrial development instead of a decreasing pollution if the two are in conflict (Mol and Carter, 2006; 156). In the process of decentralisation, more financially independent provincial and local governments made local enterprises a major source of income (Ma and Ortolano, 2000; 63). According to Lieberthal (1998), the outcome of the new unofficial policy was that the former territorial and authorial norm became negotiable. The negotiating and bargaining are challenging the status of national and local policies and laws. Industrial groups have become almost fundamental within the local policy making process. There are constant trades-offs between economic growth, social stability and environmental protection (Lieberthal, 1998; 5 and Rock, 2002; 87).

The liberalisation and delegation of power gave a weakened position of the Beijing regime. Also the provincial leaders lost authority in their relation to local officers. The new order within the bureaucratic system has proved to create obstacles within the environmental policy process including the enforcement of air pollution prevention policies (Rock, 2002; 87). When the local officers became more powerful, a relationship that can be described as interdependence was created between them and the local industries (Carter, 2001; 171).

### 5.3.2 Local Governments and Local Enterprises – Lack of Incentives

Aiming at economic success, Deng Xiaoping introduced a system that rewarded the local officials if their territory performed economic growth. It created strong incentives for local political officers to uphold a good relationship with industries. The industries became important for the individual officers' political future. Promotion and the threat of degradation, different types of benefits and rewards were applied by the Beijing regime in order to make optimal economic development a personal concern of the provincial and local political officials came to participate personally in the local companies (Lieberthal, 1998; 5). The rewarding and promotion-system has become an obvious complication within the environmental policy process. Today the local officers are to be evaluated, not only by the economic and social stability performances, but also in the protection of the environment. The additional criteria; the protection of the environment, may decrease the covert power of economic preferences. Still, the evaluation of environmental protection is arbitrary and the possibility of the protection depends on the economy of each territory. Economic growth is considered necessary in order to protect the environment. Not only are the local political officials representing the government, but they are also active in the industries, a conflict of interests (Lieberthal, 1998; 5). The same actor that shall promote environmental protection, implementing laws that are feared to thwart economic growth are actively engaged in the local companies and depending on them for finances.

A majority of the Chinese major enterprises are owned by the state up to 50 percent (Veckans Affärer, nr 38, 2005; 32). The local governments are very active in the management of the local companies (Lieberthal, 1998; 5). It may be possible to argue that the two are almost equivalent. The local administrations have a very comprehensive and evident influence in selecting manager of a company, granting credits, deciding the size of labour and business, and so forth (ibid.). A positive development is initiated. Privatisation of state owned companies are facilitating the monitoring and enforcement of environmental protection policies by local environmental protection bureaus (Mol and Carter, 2006; 156).

### 5.3.3 The Power of Foreign Capital

China's need for foreign capital and investments gives the foreign companies a lot of influence in the Chinese environmental policy process. Different interest groups are advocating the interests of foreign investors, giving them a voice and indirect influence. Many provinces are dependent on foreign investments and there are cases where local governments have given up a progressive and stringent environmental protection policy to secure foreign investments, resulting in the accommodation of high polluting enterprises (Lo et al., 2000; 315). A very good example is when Sony was transferring its production from Japan to China. Several Chinese cities wanted the Sony industry. In order to attract the multinational company to Shanghai, the city ignored the environmental risks, costs and the local environmental protection bureau's advise (ibid; 312).

International companies in China can have a positive impact on the Chinese environmental policy process (Carter and Mol, 2006; 340).

## 6 Conclusion

I have studied the challenges of Chinese air pollution policy making and implementation. Important components of the policy making process have been discussed. In China the environmental policy process is relatively non-transparent and closed. China is not a democracy; it has a political system that excludes the Chinese public. The Chinese policy process is dominated by political officials and bureaucrats. The bureaucratic system is very complex, a factor that hampers environmental policy making. Since the introduction of economic reforms, economic development has been the top priority for Chinese political officials. Administrative reforms within the bureaucracy have besides widening the decision making process opened up for economic interest groups to participate in environmental policy making. The “new” bureaucratic system have come to involve extensive bargaining, compromising the outcome of policy making. The informal politics have gained more space. Local governments have become allied with and dependent on local enterprises. The opinion that environmental protection hampers economic growth is still wide spread. Economic interests prevail over environmental. The Chinese government have created a quite comprehensive legal framework in order to protect the environment and to decrease air pollution emissions. Different set of policy instruments have been applied, but they all run into problems. The complexity within the Chinese administration, significant influence of economic interests, lack of funds and competence within local environmental protection bureaus is making the implementation problematic. The authority of environmental protection agencies is still too weak. Another major factor challenging the environmental policy process is the lack of public participation. The situation is improving as media is becoming more independent.

I would like to end by highlighting that China’s influence in international environmental policy making is increasing, a trend that will continue. China will have an important say in the outcome of international negotiations. Hence it is important and it ought to be an international concern to improve China’s attitude towards environmental protection.



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