

Helping People Build a Better World?

**Barriers to a More Environmentally Friendly Energy
Production in China. The case of Shell.**

Inga Fritzen Buan

Thesis submitted in partial fulfillment of
The Master's Degree in Human Geography
Department of Sociology and Human Geography
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¹ In 2000 it was decided that "Helping People to Build a Better World" was the Shell Group's "core purpose" (Mirvis 2000:75).

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Abbreviations

ADB	Asian Development Bank
CTL	Coal-to-Liquids
CCICED	China Council for International Cooperation on Environment and Development
CSR	Corporate social responsibility
ESIA	Environment and social impact assessment
FDI	Foreign direct investment
FNI	Fridtjof Nansen Institute
GDP	Gross national product
GONGO	Government-organized non-governmental organization
GHG	Greenhouse gas
HQ	Headquarter
HSE	Health, safety and environment
IPCC	Intergovernmental Panel on Climate Change
JV	Joint venture
MFA	Ministry of Foreign Affairs
NDRC	National Development and Reform Commission
NGO	Non-governmental organization
PR	Public relations
R&D	Research and development
SEPA	State Environmental Protection Agency
TNC	Transnational company
UNDP	United Nations Development Programme

1 Introduction

The topics discussed in this thesis are making headlines on a daily basis. First, to paraphrase Napoleon's somewhat tired quote; the giant named China has finally awoken and is indeed making the world tremble. China's economic growth has enabled it to achieve the most extensive, quick-paced poverty reduction the world has ever seen, and with economic development comes a wide range of positive and negative consequences. Second, the environmental debate is now entirely global. It is largely centered on climate change and the threats associated with it, but the national-level environmental challenges of large countries such as China are also part of the global discourse. Even people and companies not entirely convinced as to the seriousness of such threats are choosing to err on the side of caution, and besides, there is money to be saved as well as employment to be created based on being "green". This is also related to the question of *image* and large companies' increasing need to portray themselves as socially and environmentally responsible. Which leads us to our third timely topic, *transnational corporations* (TNC), the roles of which in the global environmental debate have changed significantly in the past few decades, much due to the civil society's heightened environmental awareness. The Royal Dutch/Shell Group (henceforth Shell)² is a good example of a TNC that has undergone a significant transformation and has for that reason been chosen as the object of my case study.

1.1 Research questions and theoretical tools

The cost of China's quick-paced industrialization and economic expansion is that the growth itself is unsustainable, both socially and geographically unequal and that it is backfiring especially in the form of increased damage to the already fragile natural environment. Driving the rapid industrialization and environmental deterioration are the fossil fuels. It is not likely that renewable energy sources will be able to compete with the traditional fuels in China any time soon. A more environmentally friendly fossil fuels energy production thus becomes a kind of substitute goal. The aim of this thesis is to use a case study of the Shell Group and its national operative company Shell China to address these two questions:

² I use the names Royal Dutch/Shell, the Shell Group, Shell and the Group when referring to the transnational company, sometimes also when referring to their operations in China as it is not always necessary to distinguish between the entities. When referring to something specific to the Chinese branch of the Group, I call it Shell China.

1. What changes have happened in the Shell Group in the past decade to make it a more environmentally responsible company?
2. Do these changes have relevance for Shell China or will barriers in the Chinese context influence its prospects to operate in a more environmentally friendly way?

Due to limits in time and in the size of a thesis such as this, I have chosen to focus on barriers alone, and not opportunities or both. This does not mean, however, that I assume such opportunities do not exist or that they will not be mentioned where relevant and appropriate. The reason I use the word “more” in both questions is that although I do not believe fossil fuels production will ever become entirely benign, there is much that can be done to make the existing use of coal, oil and gas if not clean and sustainable, then *cleaner* and *more sustainable* than it is today. Shell companies can contribute to this by making existing fossil fuels production more environmentally friendly; by diversifying and developing renewable energy sources; and by creating precedence influencing other companies and industries to follow in its footsteps.

Geographical context matters and I want to investigate what happens to a company’s environmental policies when it tries to implement them in a new context. To answer my first research question I will use an analytical framework put forth by Estrada, Tangen & Bergesen (henceforth Estrada et al. 1997), which contains a typology of three possible responses energy companies may use in the face of new environmental demands, expectations and legislation. The companies’ results vis-à-vis six indicators of change determine their position on the typology’s response axis. The indicators are: the environmental vision and image the company presents to society; environmental management; long-term planning and scenarios; research and development; investments; and government relationship and public relations. Companies are then classified as either *reactive*, *cautious* or *creative*. I will use the indicators to identify the Shell Group’s environmental profile as of 2007 and look for changes since 1995, the year Estrada et al. did their study.

Estrada et al.’s (1997) study and framework are good tools for addressing my first research question because it provides a thorough analysis of Shell *anno* 1995, a good point of departure for a comparison of the company’s environmental profile before and now. Moreover, the framework is part of a larger body of contemporary

theoretical thought used in this thesis called *ecological modernization*, the main idea of which is that it is both desirable and possible for societies to develop economically and socially while at the same time conserving the environment (Mol 2006). During the course of this study, however, it became apparent that Estrada et al.'s (1997) framework was insufficient in explaining the *implications of companies' environmental profiles*. It did not help me analyze how the profile and the elements it includes are influenced by factors in the Chinese context. In Chapter 4 I will, based on literature and interviews, identify barriers in the Chinese context which I expect may hinder the successful implementation of environmental policies meant to make fossil fuels energy production more environmentally friendly. Moving, then, from general empirical observations to a more analytical approach, in order to address my second research question, I will use Najam's (1995) "5C Protocol" to study the prospects for implementation of existing environmental policies. More specifically, I will analyze the prospects for implementation of the Shell Group's Health, Safety and Environment (HSE) policy in China as an example of how the barriers influence implementation of existing environmental policies. Najam identifies five variables which influence the directions implementation might take. These are a policy's content, context, commitment, capacity and clients and coalitions. The 5C Protocol thus compliments Estrada et al.'s (1997) framework by adding the possibility to explain how something happens, or does not happen, in a particular context.

1.2 Shell, a modern transnational company

In light of the rapid increase of foreign direct investment (FDI) in developing countries, the environmental practices of TNCs increasingly influence prospects for sustainable development. Consequently, there is a need to analyze factors impedes the positive contributions of such companies to the sustainable development of host countries.

As illustrated by some of the recent decade's highly media-covered events the Shell Group has been involved in, it is clear that the company is a major player in the international political economy and a worthy object of an in-depth study with reference to the environmental aspects of the energy industry's operations. I chose to analyze also the operations of the national operative company Shell China because even though the Group now prides itself in being on the environmental forefront, the geographical context will likely influence Shell China's prospects for achieving the environmental goals common to the Group as a whole. In the same way as the

strategies, positions and standards of the Shell Group may indicate trends for the rest of the energy industry (Estrada et al. 1997), Shell China's ability to achieve its goals may indicate trends among foreign energy companies in China. The *transferability* of my findings will be discussed in Chapters 3 and 7.

Information on these topics has been collected through fieldwork and interviews in China. I interviewed a number of people with expertise on topics related to environmental and energy issues in China. Even though a lot of information on energy companies' business operations, especially their efforts to act more environmentally and socially responsible, is available in literature and on the Internet, much important information is also not disclosed to the public. My informant at Shell China in particular provided me with information crucial to this analysis which I would not have gotten a hold of otherwise.

I want to emphasize that it is outside the scope of this thesis to study the *results* of any environmental policies, that is, to which degree they lead to actual environmental improvement.

1.3 Outline of contents

This thesis consists of seven main chapters. Chapter 2 contains my theoretical tools. I outline ecological modernization as well as Estrada et al.'s (1997) framework for the analysis of energy companies' responses to rising environmental demands. I then present Najam's (1995) 5C Protocol, a tool for analyzing policy implementation. In Chapter 3, I give an account of the methodology used in this thesis and its implications. I am taking a qualitative approach using an in-depth case study of the Shell Group and have gathered information through semi-structured interviews with people I believe able to provide relevant information. The chapter also contains a discussion on the challenges related to doing fieldwork in China. China is the focal point of Chapter 4 where I outline important parts of the country's past and present situation related to economy, environment and energy. Towards the end of this chapter, I will introduce the barriers to a more environmentally friendly energy production which I find to exist in the Chinese context. The comprehensiveness of this chapter represents the expected width of the barriers I am looking for as well as a kind of exploratory approach to the following analysis, common in qualitative research. Chapter 5 provides an outline and analysis of the Shell Group and Shell China, the main point being the comparison between the Group's environmental profile in 1995 and 2007. The aim of Chapter 6 is to analyze the prospects for a

successful implementation of Shell's HSE policy in China, in light of the barriers identified in Chapter 4 and using the 5C Protocol. Conclusions will be drawn in Chapter 7 where I also discuss Shell China's potential for an extended social legitimacy as well as the prospects for ecological modernization in China. Lastly, I will take a critical look at the transferability of my findings and the relevance of the theory applied.

2 Theory and Analytical Framework

The theoretical tools I will be using to analyze my data consist of a general body of theories called ecological modernization which will form the theoretical backdrop of this thesis; Estrada et al.'s (1997) industry-specific analytical framework which belongs to the school of ecological modernization; and Najam's (1995) set of variables used for studying implementation. Using both specific and general theories in the study of the same case will help deepen the analysis and show different perspectives of the topics discussed. Adding the implementation perspective to the analysis helps solve an analytical challenge which arose when it became apparent that Estrada et al.'s framework was a good tool for description, but not for analyzing and addressing the question of *why* environmentally friendly energy production is hard to accomplish in China. Estrada et al.'s framework thus addresses my first research question and the 5C Protocol addresses the second.

2.1 Ecological modernization

An important concept, field of inquiry and topic of debate in the environmental social sciences over the past few decades, ecological modernization has been getting increasing amounts of attention from policymakers in the developed countries (Dickens 2004). The term refers both to a tool for explaining existing environmental reform patterns and to a normative concept for the planning of future "green" trajectories (Zhang et al. 2007). We here deal with the former.

In the 1980s "an ecological perspective started to challenge the monopoly of economic rationality as the all-determining organizing principle in the sphere of economics" (Mol 2006:31). The concept developed as a response to the failures of the old pollution control policies of the 1960s and 1970s by focusing on prevention rather than cure and the promotion of low and non-waste technologies.³ The zero-sum game perception of "environment versus economic growth" was increasingly replaced by a common denominator for development of industry and the preservation of ecology: there did not have to be a discrepancy between the two. Something which can prompt companies to realize this is what Porter and van der Linde (1995) refer to as *product* and *process offsets*. They claim stricter environmental regulations can lead to innovation which in turn can contribute to the strengthening of companies' compe-

³ <http://www.valt.helsinki.fi/staff/skahonen/akatemiahak.htm>

titive advantage through such offsets. Product offsets occur when environmental regulations not only lead to less pollution; but also better-performing, higher-quality and safer products. Process offsets occur when environmental regulations also result in higher resource productivity such as higher process yields; less downtime; material savings; better utilization or by-products; conversion of waste into valuables; or safer workplace conditions. Porter and van der Linde's (1995:98) hypothesis is that "properly designed environmental standards can trigger innovation that may partially or more fully offset the costs of complying with them". This makes it possible for economic processes of production and consumption to be designed, organized, analyzed and judged from both an economical and an environmental point of view, leading to institutional changes in which companies develop environmental management systems and establish environmental departments.

The core topics in ecological modernization, which are not physical improvements in the environmental situation *per se* as much as social and institutional transformations which could eventually lead to physical improvements, include:

- The changing role of science and technology: environmental improvements achieved through technological advances;
- The new roles of market dynamics and economic actors in ecological restructuring and reform, complimenting the roles of the state and civil society;
- More non-state actors increasingly assuming the administrative, regulatory, managerial, corporate and mediating functions of the nation-states at the same time as supra-national institutions emerge to undermine their traditional role in environmental reform;
- Modifications in the position, role and ideology of social movements;
- Changing discursive practices and emerging new ideologies (Mol & Sonnenfeld (2000:3).

These are among the keys to modern environmental reform. In relation to the fifth core topic, Mol & Sonnenfeld (2000:4) hold that "[c]omplete neglect of the environmental and the fundamental counter-positioning of economic and environmental interests are no longer accepted as legitimate positions", something which has the potential to fundamentally influence the image of private companies.

In current research on environmental issues there is much discussion on whether economic expansion and environmental matters are complimentary or fundamentally contradictory concepts. The theories of ecological modernization propose the former. They thus contrast the “pollution-haven hypothesis” which serves to explain how TNCs will relocate to developing countries because of lower environmental-compliance costs (Gallagher 2006:100). The idea is that a pollution haven may develop if “environmental stringency differs between countries, if capital is mobile, and if trade rules allow firms to relocate and still sell their products to the same customers” (Fullerton 2006:ix). This is then expected to lead to environmental degradation in the developing countries and improvements in the developed, leading to a rise in total worldwide pollution. Another view which runs counter to ecological modernization’s belief in technological progress as the solution to the economy versus environment dilemma is Gabel and Sinclair-Desgagné’s (2001) critique of the “Porter hypothesis”. Their main point is that not all the innovations which happen due to stricter regulations will enable companies to pick “low-hanging fruits”, that is, have economically beneficial innovation offsets. Even if Porter and van der Linde (1995) are able to list many examples of how this has occurred, there is no guarantee that innovation as a norm leads to offsets. Gabel and Sinclair-Desgagné (2001:10) claim low-hanging fruits must be viewed rather as an “unintended but welcome bonus” of environmental regulations.

It is not the purpose of this thesis to in any way “prove” or “falsify” either ecological modernization or the pollution haven hypothesis. It is not a question of deciding whether in today’s business reality all companies either move their pollution abroad *or* opt for “green” technology because it is good for business. It is also not an effort to decide which one Shell or Shell China is “choosing”. Both explanations include valuable points and a company’s strategies will no doubt be based on a complex set of factors. In addition to the question of low-hanging fruits, the level of price competition on the products a given company produces may influence their ability to innovate, since innovation sometimes also leads to higher prices (Jenkins et al. 2002). Using ecological modernization in an analysis regarding Shell’s environmental policies, however, is useful because it is consistent with the Group’s aim to “meet the energy needs of society in ways that are economically, socially and

environmentally viable”,⁴ which dismisses a belief in a fundamental discrepancy between economic, social and environmental issues.

2.1.1 Ecological modernization in this study

In discussing the case of Shell and the prospects for ecological modernization in China, I will emphasize the new roles of economic actors and social movements. First, in ecological modernization a lot of faith and trust is put in the contribution to environmental conservation by economic actors such as private companies. Some authors even claim sustainable economic development can be ushered in only if corporations are made environmentally sound (Hart & Shrivastava 1995). A lot of effort has been made to understand how companies relate to environmental issues, and whether they indeed do so at all. At the same time ecological modernization is increasingly favored by companies and business interests as a strategy of change, because it seemingly meets the “triple bottom line” of economics, society and environment that underpins sustainability, *without* challenging the principles of the free market (Christoff 1996). This, and the notion that neglect of environmental interests is no longer accepted as a legitimate position, opens up for new ways of looking at private enterprise. Traditionally, free trade and notions of business self-regulation have been seen by oppositional actors as part of both the problem and the origin of environmental degradation. Not only environmentalists are skeptical, however. Contrary to the notion of innovation offsets mentioned above, on the corporate side there are those who believe environmental regulation inevitably leads to loss of competitiveness and profits, which makes business lobbies act against stricter regulations (Jenkins et al. 2002).

Second, in ecological modernization theory social movements “play a central role in the environmental transformation of contemporary society in collaboration with government agencies and manufacturing firms” (Sonnenfeld 1999:1). The term “social movements” encompasses broad, loosely connected social formations pressing for change, as well as formalized organizations. In developing and transitional countries people often address environmental concern more as communities than as organized groups, making the broad use of the term appropriate for the study of China. Social movements appear to have moved out of the political periphery and now “communicate, negotiate, and consult directly with economic agents and state

⁴ http://www.shell.com/home/content/china-en/about_shell/our_performance/dir_our_performance_110702.html

representatives” (Mol in Sonnenfeld 2002:2), playing a critical role on the inside of the centers of power. Mol (in Sonnenfeld 2002:2) further claims “environmental social movements have “shifted from working closely with the state to closer relationships with market actors”. As neo-liberal as these views and this faith in private corporations may seem, ecological modernization also has room for the state (Beck 1999). It is seen as an enabler for markets that help produce technological advances via competition and a regulatory medium producing laws and regulations. In some cases, however, it is seen as an institution incapable of addressing critical local, regional and global environmental problems. Proponents of ecological modernization see the necessity of developing new forms of environmental governance in which environmental movements, community groups, businesses and other stakeholders take on direct leadership roles, thus taking on parts of the traditional roles of the state (Beck 1999). For this to be possible, however, certain supporting norms and institutions such as a free press, and basic human rights of expression, organization and assembly are required. Such prerequisites are obviously not present in all parts of the world, but the potential development of a free and more outspoken press has been facilitated by the Internet.

I chose to focus my analysis on these two core topics of ecological modernization for the following reasons. The Shell Group is an example of an economic actor influenced by processes of ecological modernization in Europe. In the 1990s it underwent a thorough change when trying to cope with the new challenges confronting its industry, among which were environmental challenges (Chapter 5). Concerning social movements, they were crucial in influencing Shell and other energy companies’ “transformations” in the 1990s. I am interested in to which degree such movements can play a similar role in China. There are still limitations on the activities of such movements there, however, but some positive developments are nevertheless taking place (Economy 2003) (Chapter 4).

Earlier, ecological modernization was thought to be an ill-fitting concept for any other than the European countries (Mol 2006). This view has changed as the economic, political and societal processes and dynamics pushing for environmental reform are no longer restricted to one (developed) country at the time, but have become transboundary and been carried by globalization to other corners of the world. Mol (2006) argues that ecological modernization is increasingly applicable to analyses of other parts of the world for two major reasons. First, a number of

countries, especially in Southeast and East Asia, are industrializing and modernizing.⁵ Second, in the course of globalization, there is an increasing global interdependency in political, cultural and economic domains, resulting in the import/export not only of goods and services, but of environmental reform models, practices, dynamics and values. These two developments contribute to a spreading beyond the developed countries of the conditions under which ecological modernization first originated and of its environmental strategies, practices and measures, making it possible for it to develop there as well (Mol 2006). Using ecological modernization to analyze environmental developments in developing or transitional countries such as China, has to some researchers proved a challenging task since one often does not deal with the same forms of governmental, corporate and civil society structures as in the developed countries. One should therefore be careful not to transfer perceptions about societal and cultural mechanism directly from one place to the next. In addition, the importance ecological modernization attaches to the role of environmental social movements as drivers of the ecological transformation of society (Sonnenfeld 1999), may complicate things in the case of China because, as we will see in Chapter 4, non-governmental organizations (NGOs) there act under special circumstances and are limited in number. I expect that even though it may be hard to find clear signs of ecological modernization in China, it may still be influential in the case of Shell China, because the Shell Group is highly influenced by European social movements and pressure groups.

2.2 Analyzing environmental challenges confronting the energy industry

Estrada et al.'s (1997) framework is a theoretical model aimed at improving our understanding of how environmental issues are dealt with in the corporate world. This focus on the role of companies in environmental protection positions it within the frames of ecological modernization. Since the 1980s there has been a significant increase in the focus on corporate environmental management not just among academics, but also policy-makers, managers and consultants. Numerous continuum models (also called stage or phase models) and typologies have been formulated as ways of interpreting these developments (Kolk & Mauser 2002). Kolk & Mauser (2002:15) explain that continuums “describe a development in time consisting of an

⁵ “Modernization” here refers to a development trajectory similar to that of the developed countries which are normally regarded as the most “modern” or “modernized”. Whether or not “modernization” necessarily means to become like the “developed” countries, is another debate entirely.

increasing integration of environmental concerns into business policy and strategy”, while typologies characterize companies’ positions as sets of ideal types, without assuming a growing responsiveness over time. While both continuum models and typologies are criticized for having flaws such as rigidity and operationalization difficulties, there also exist models that are in a position between the two, comprising both continuum and typology characteristics. Below we will see that the Estrada et al. framework is a typology, since it characterizes company responses as sets of ideal types and shows the situation at *one* given time. I want to identify whether Shell has shown improvement or at least “movement” over time, something which will help solve some of the typology model’s rigidity problems.

2.2.1 *The Estrada et al. framework*

Estrada et al. (1997) present a theoretical framework for the analysis of whether the energy industry is able to extend and renew its social legitimacy as it faces the challenges stemming from its impact on the environment and the consequent public questioning of its role in society. “*Social legitimacy* is what gives an industry its license to operate”, Estrada et al. (1997:1, italics in original) write, claiming that:

“Every industry relies on a mission that is defined in its interaction with the society around it. In order to survive, it must (...) operate in a manner that is compatible with the basic values of the population. This does not preclude conflicts over specific issues, but it does guarantee a fundamental alignment of interests between industry and society.”

Accrediting this kind of power to the public is part of what places Estrada et al. within the frames of ecological modernization. Six indicators⁶ of change are used to study how the energy industry is responding to environmental issues and how they affect the renewal and extension of its social legitimacy:

- The environmental vision and image the company presents to society;
- Environmental management;
- Long-term plans (scenarios);
- Research and development (R&D);
- Investments; government;
- Public relations (PR).

⁶ “Indicators” is defined as “a thing, especially a trend or fact, that indicates the state or level of something” (Sloanes & Stevenson 2005). Even if the six elements described in Estrada et al. (1997) may not really fit this definition, I choose to keep the term so as to be consistent with the book.

The companies' positions are classified as environmental strategies that are either *reactive*, *cautious* or *creative*. Most companies cannot unambiguously be given one position, as they may perfectly well develop new "green images" while at the same time focus on their traditional pollution-intensive core businesses (Kolk & Mauser 2002). Separate parts of the same company may also behave differently for reasons such as the backgrounds of its employees or relationship to local stakeholders. It is therefore important to emphasize that the categories are not mutually exclusive. It should also be noted that having only three positions to choose from may hide great variations in company reactions and strategies in different fields of its operations. A description of how a company fits or does not fit into the different positions is a good, but not absolute, way of shedding light on its stance vis-à-vis environmental issues.

Estrada et al. (1997) describe an evolutionary axis of environmental concern, starting half a century ago with focus on *local* health problems such as polluted city air, moving on to concerns with *regional* ecological degradation such as acid rain and ultimately *global* environmental sustainability today, with the prospect of climate change as the most prominent feature. Other aspects of today's debate are how the local and the global are perceived as closely linked; the increased focus on multi-national co-operation and international agreements; corporate social responsibility (CSR) and the business case for sustainable development; the role of the media in reinforcing the political engagement of social groups; and debates over the potential for technological innovations to help us meet environmental challenges. One aspect which has undergone significant development since Estrada et al. (1997) wrote the book is the fact that the energy industry is starting to acknowledge and even take some responsibility for the environment and its effect on it, or at least create an environmentally conscious image. Thus, today the trends in environmental regulations include increased resources involved in preventing environmental accidents; high insurance premiums due to stricter liability laws; stricter definitions of environmental responsibility; and requirements of documentation on regulatory compliance.

These days, as more countries' environmental regulations become stricter and international agreements are signed, both leaving fewer incentives for strategies involving export of polluting industries at the same time as companies are starting to act, or at least *appear*, more responsible, it has been argued that the pollution haven hypothesis is of less use than before, or of little use at all. Jenkins et al.'s (2002) analysis of the impacts of environmental regulation on selected industries and com-

petitiveness was inconclusive, neither “proving” nor discarding the hypothesis. It is important to remember that companies will behave differently for example because of their size and the amount of media attention they get. Factors that may explain the lack of a correlation between environmental standards and location decisions by TNCs include the fact that the cost of compliance with environmental regulations in both home and host countries are a relatively small share of total costs and therefore does not weigh much on the final decision; due to economies of scale the cost of applying common standards across a TNC system may be lower than having different standards in different countries; that TNCs are increasingly visible; and that environmental issues more closely monitored (United Nations 1999). Famous companies like Shell and the other Oil Majors have had their reputations blemished in the past and it is thus reasonable to assume that they are more cautious about how they operate than companies that have gotten less or no negative international attention.

The standards for environmental performance are getting higher as every link in an industry chain must comply with a series of environmental regulations imposed by the governments of different countries (Estrada et al. 1997). Due to the size of their operations and budgets, stricter environmental regulations will seldom threaten the livelihood of an energy company, but with the evolution of an increasingly sector-specific environmental legislation, the industry will be compelled to develop *ad hoc* technology and in single cases compliance may therefore represent an economic obstacle. Estrada et al. (1997) studied Shell as well as Exxon, British Petroleum, Amoco and Statoil, all of which are among the energy industry’s biggest and most influential. Few companies in the world can mobilize as many resources to develop environmentally benign technologies and products as they could, if they so wanted. Having gone through the environmentally-related ordeals they have in the past, and are going through still (see Chapter 5), energy companies have become “fine-tuned” to identifying new challenges and how to adjust to them (Estrada et al. 1997). Like in the case of pollution havens, a company that has been the object of environmental controversy or scandal can be expected to act more carefully as it attempts to avoid similar accidents for the sake of the people and environment involved and the negative publicity which would inevitably ensue.

2.2.2 *Approaches to environmental strategy in energy companies*

Using the Estrada et al. (1997) framework, I will identify the environmental profile of the Shell Group and analyze how both company and country characteristics influence

Shell China's ability to achieve the Group's environmental goals thus contributing to its extended social legitimacy. An energy company's attitude towards the environment is grounded in the experiences that are common to both the industry at large and the specific companies (Estrada et al. 1997). These attitudes are "mental frameworks" (p. 45) within which strategic planning takes place which can influence a company's approaches and strategies towards the environment. Estrada et al. (1997) identify three approaches to environmental strategy in energy companies:

The reactive approach. A reactive company will deny all public accusations suggesting that its activities or products are harmful to human health or natural ecosystems. The company's strategy will be to "wait and see" before making any budgetary allocations to comply with regulations, hoping that the political pressure will simply go away and that the government will not pass new regulations as a consequence of these "unjust" accusations. It will argue that new regulations are unnecessary both for the industry and the public, and that the new regulations and increased costs may tip the balance of costs and cause disinvestments and price rises. It will also let the public know about new regulations' negative consequences for the creation of wealth and for employment. It will want to let the market decide and the public trust the company to fulfill requirements and prevent environmental degradation.

The cautious approach. The cautious company will see environmental issues as a symptom of concern by influential interest groups, but claim that there are uncertainties about the justification of said concern. This company will take care not to neglect environmental issues, thus complying with the regulations proposed by the government. Compliance becomes a matter of professionalism and preparedness in case the issue is more serious than it thought. The company will argue that regulations must be based on minimum standards mandatory for all actors in the field, thus avoiding harm to their own comparative position. This was the most common approach among the cases studied by Estrada et al. in 1995.

The creative approach. The creative company acknowledges that the scientific evidence is strong enough to justify concern for the environment and sees the issue as an opportunity to become a frontrunner on new products, technologies and organizational forms. It will attempt to redirect its skills towards a wider range of technologies, perhaps diversifying to alternative energy sources. It will promote cooperation with host country governments in the definition and implementation of environmental regulations. Its rationale is to improve the company's comparative advantage and

discover new directions for future development, through innovation offsets, cost leadership or differentiation (Porter 1985). Differentiation means becoming unique in an industry along dimensions valued by the consumers such as product type and quality, distribution, sales, marketing, service and image. A good image can be achieved by incorporating environmental aspects into all parts of your business in order to be, or at least appear to be, more environmentally friendly than your peers, something which may also enhance your prospects for social legitimacy. In the case of TNCs, host country industries may be left at a disadvantage, because opting for environmental innovation offsets and differentiation are a diffusion process which happens as stricter regulations are gradually adopted. While simultaneously leading to environmental benefits, stricter environmental regulations prompting changes in companies have the possibility of in this way enhancing a company's competitiveness (Porter and van der Linde 1995). It is reasonable to assume that both innovation offsets, cost leadership and differentiation are within the reach of a company such as Shell.

How, then, can the changes in the energy companies' approaches to the environment be observed, as one imagines them going from reactive, via cautious to creative, and actually "moving" in the direction of creativity? Estrada et al. (1997) explain that although company strategies are seldom open to public scrutiny, it is possible to analyze their attitudes towards the environment empirically by looking at the positions adopted on different environmental issues. In addition we can also read company documents on environmental policy principles, goals and measures adopted to live up to these principles and goals. This is where the six indicators of change⁷ come in to play.

Environmental vision and image. Whether or not an environmental vision and corresponding goals have been established at the corporate level is the first indication that the company is aware of the increasing environmental concerns in the public and governments in the countries in which it operates. Another expression of this indicator is how the company defines its overall role in society and if it accepts any responsibility beyond that of making profit. Here, as in so many other cases, it is important to be aware of the differences in rhetoric and practice. One will find increasing amounts of information in literature and especially online on companies' environmental and

⁷ In their book, Estrada et al. (1997) continuously refer to "five indicators of change" but do in fact always list six, making me think it is a simple typing error.

social efforts, CSR instrument adherence and partnerships with non-governmental organizations (NGOs).⁸

Environmental management. This term refers to the objectives, standards, procedures and practices a company sets up to manage environmental challenges and the environmental aspects of its business operations (Hansen 1999). It is a question of whether or not organizational changes have been made to support the goals presented in the company's visions and image because performance can only be improved if environmental concerns are integrated into company operations in the same way as other key objectives, like financial return (Estrada et al. 1997). In addition to a set of general principles for environmental activities; more specific policies as well as procedures for monitoring and control of whether the environmental conduct of the branches are operating in accordance with the regulations and standards outlined by the company headquarters (HQ); there should be training activities aimed at awareness and competence-raising on all levels of the corporate structure. The environmental management system should be part of a formal organization, where responsibilities and functions are allocated between entities and staff members. New forms of management could include a restructuring of the organization to include new units; reallocation and increased number of staff; environmental training programs; internal audits; environmental performance reviews and environmental and social impact assessments (ESIA).

Strategic and scenario planning. In figuring out how environmental matters have affected a company's long-term thinking, one can analyze the use of scenario-planning to see strategic thinking and study how environmental matters are handled in long-term planning processes; how prepared the company is to deal with environmental change and how it copes with ecological, economic or political uncertainty. Environmental aspects should be included in scenarios and strategic plans, in order for the company to be both prepared for future developments and ahead of its game compared to its peers. Planning can influence the company's R&D and investment.

Research and development. This indicator deals with the degree to which the changes mentioned in the three previous paragraphs have affected investment decisions and caused diversification. "A company's perception of the future is consciously or unconsciously reflected in its allocations of resources for R&D," write Estrada et al. (1997:67), adding that by studying a company's recent efforts in R&D you can see

⁸ See f. ex. www.shell.com.

whether such efforts have been influenced by environmental awareness, and also whether or not it is an indicator of a trend towards diversification and away from utter fossil fuel dependence.

Investments. In deciding how investment decisions are environmentally influenced, one should look for evidence of long-term commitment to invest in projects designed to improve the environment that go beyond what legal standards require, as well as expansion of the company's project portfolio in such projects.

Government and public relations. This indicator shows how the company relates to and deals with the political agenda of environmental policy. Estrada et al. (1997) explain that a company can build counter-arguments to different environmental policy debates as an attempt to mitigate the effects of proposed legislation and public pressure on it to take action against environmental degradation. This can be done by lobbying governments, through the use of PR campaigns or by influencing the scientific community.

2.3 Policy implementation

Estrada et al.'s (1997) framework enables me to describe the Shell Groups environmental profile which will also help me discuss to which degree the company is able to extend and renew its social legitimacy. To be able to discuss the linkages between Shell and Shell China on the one hand, and the barriers in the Chinese context on the other, however, as noted, I will apply Najam's 5C Protocol (1995) to analyze the implementation of Shell's HSE policy in the Chinese context (Chapter 6).

In a situation where environmental degradation is a threat or already happening and where subsequent protection or reversion of the process is needed, mitigation policies will be formulated and implemented. Mazmanian and Sabatier (in Najam 1995:6) offer a good definition of the concept of implementation by calling it "those events and activities that occur after the issuing of (...) policy directives, which include both the effort to administer and the substantive impacts on people and events." This analysis will be limited to studying the *administration efforts*, thus not covering the ultimate impacts on people and events. Because it is both *process* and *result*, implementation is still implementation even when unsuccessful; altered in the process; or when it ultimately winds up achieving goals that are different from those anticipated (Najam 1995). Policies can be formulated for example by governments on the different geographical levels and by companies, both on the HQ level and further down the hierarchy. Earlier, implementation was viewed almost like an administrative

chore, writes Najam (1995:1), which “once the policy had been legislated and the agencies mandated with administrative authority, would happen of and by itself”. Implementation is not, as it turns out, such a simple matter, whether one is trying to actually implement something or explain why efforts failed or succeeded.

Najam (1995) does not provide a causal theory (indeed he says achieving this is neither likely nor desirable), but rather, based on the work of many authors before him, identifies key clusters of explanatory variables which allow for a better understanding of issues related to implementation. Traditionally there have been few linkages between studies of implementation in developing and industrialized countries. One key feature of the 5C protocol is that it can be used in studies of implementation independent of the type of policy issue (e.g. environment, population); the type of policy (e.g. distributive, regulatory, redistributive); political system (e.g. federal, centrally-planned); and place (e.g. industrialized or developing country). It is therefore applicable to the study of the implementation of a regulatory environmental policy in the operations of a TNC doing business in a centrally-planned transitional country like China. Rosendal (1999) summarizes Najam’s five variables which shape the directions implementation might take in this way:

- The *content* of the policy itself, what it sets out to do (goals), how it questions and discusses the issue and how it aims to solve the problem in question (methods);
- The institutional *context* through which policy must travel, and by whose boundaries it is limited;
- The *commitment* of those entrusted with carrying out the implementation of the goals and methods at various levels;
- The administrative *capacity* of the implementers to carry out the desired changes;
- The support of *clients and coalitions* whose interests are enhanced or threatened by the policy, and the strategies they employ in strengthening or deflecting its implementation.

Each of the five variables is to a varying degree linked to, and influenced by, the others, depending on the specific implementation situation (Najam 1995). For example, policy content may, or may not, provide the resources for capacity building.

The institutional context of the relevant agencies may hinder or help capacity enhancement. The commitment of implementers to the policy's goals and methods can make up for the lack of capacity – and *vice versa*. Or, the coalition of actors opposed to effective implementation may impede the capacity which might otherwise have been sufficient. In the same way, supportive clients and coalitions may in fact enhance capacity.

Writes Najam (1995: 52): “implementation cannot be seen as an activity to be planned and (...) carried out according to a carefully predetermined plan; rather, it is a process that can only, at the very best, be managed”. In Chapter 6, as an example of how this takes place, I will use Najam's variables to analyze the implementation of Shell's HSE policy. It is Najam's own suggestion that his terminology and tools be applied specifically and empirically to international environmental commitments in both developing and industrialized countries. The policies of Shell are not, of course, international environmental commitments, but they are examples of policies formulated in one place and at one geographic level which are, first, universal to the entire Shell Group, and second, implemented in a different geographical context. I also find the 5C Protocol useful and appropriate in my study because of its explicit claims to general acceptability and applicability as well as specific relevance.

2.4 Summary

The theoretical backdrop of this thesis is ecological modernization, a school of thought emphasizing that environmental and economic goals are not necessarily fundamental opposites, but can be achieved simultaneously. Set against this backdrop, I have outlined Estrada et al.'s (1997) framework and explained how the six indicators of change will enable me to reconsider the Shell Group's position as an either reactive, cautious or creative company. Seeing the company in relation to its environmental vision and image; environmental management; strategic and scenario planning; R&D; investments; and government and public relations, I seek to identify developments in the company which may show change from 1995. In order to discuss the linkages between barriers to a more environmentally friendly energy production and Shell China's operations, I will analyze environmental policy implementation. To this end I have presented Najam's 5C Protocol (1995) which I will use to analyze how the Shell Group's HSE policy's content, context, capacity, commitment, clients and coalitions influence its implementation.

3 Methodology

The *credibility, validity* and *transferability* of one's research will depend on the base of the knowledge being made explicit, meaning that the ways in which the data has been collected, analyzed and the results interpreted are all accounted for (Thagaard 1998).⁹ In this chapter I argue for the credibility, validity and transferability of my study. I will also give a description of my data collection process, discussing issues such as doing fieldwork in China, how to get in touch with informants and what to do with the data once it is collected.

3.1 Qualitative methodology and the use of case studies

Considering the objective and research questions of this thesis, the use of a qualitative methodological approach seemed the most appropriate. Qualitative methodology is characterized by in-depth, intensive approaches that came as a reaction to the “quantitative revolution” which in the 1960s tried to understand people by measuring their thoughts and actions quantitatively (Limb and Dwyer 2001). The human mind, however, is much more than numbers, and not always the most rational or measurable of actors. The social world, therefore, is dynamic, always changing and so researchers using qualitative methodologies do so because they feel that exploring the feelings, understandings and knowledge of others through interviews, discussions and participant observations is a better way to gain knowledge of, and explain the complexity of, the processes that shape our societies. It is, however, important to emphasize that it is not a choice to use qualitative rather than quantitative methodology, since the two are not *opposites*, but rather belonging to different strands of research involving different topics and research questions. Qualitative methodology is appropriate in this study because I want to explain a smaller issue related to the Chinese environmental challenges, namely the factors in the Chinese context which hinder Shell China's achievement of its environmental goals. I have taken an exploratory approach to data collection through open-ended interviewing with informants whose expertise cover a range of areas, and through reading scientific and journalistic articles on a broad specter of topics. Such an approach is appropriate in the study of this topic since I expect the relevant factors to be many and varied.

⁹ In an effort to distinguish qualitative and quantitative research methodologies, Thagaard (1998) uses the Norwegian terms *troverdighet, bekreftbarhet* and *overførbarhet* instead of *reliabilitet, validitet* and *generalisering* for credibility, validity and generalizability respectively.

3.1.1 *The case study method*

Yin (1994) writes that doing a case study is suitable in cases where the main research questions are questions of “how” and “why”; when the object of study is contemporary and when the researcher has little control over the events. A case study is thus relevant here vis-à-vis Yin’s standards, given my topic and research questions, since I am analyzing *whether* and *how* barriers in the Chinese context influence Shell China and *why* implementation of environmental policies is so difficult to accomplish. Choosing a case study as a research strategy is also appropriate when exploring the operations of a company, since it will “preserve [the] unitary character [of the case], rather than provide generalizations” (Mitchell 1983:169). The concept of *generalization* is a particularly tricky one in qualitative research (below).

Qualitative research is usually considered to be *inductive*, meaning that theories are developed from data, as opposed to *deductive* in quantitative research where data is used to test a theory (Thagaard 1998). Between these two approaches you find *abduction* in which the relationship between theory and data is dialectic and where the analysis is characterized by the interplay of inductive and deductive inferences. When using an abductive approach, established theory represents the point of departure for the research, but the goal is not necessarily to continue the development of the theory (Thagaard 1998). I have chosen to opt for what Bergene calls a “disciplined-configurative case study” which “involves an attempt to interpret findings in light of a general theory, thus running from theory to case interpretation” (2005:24). Upon using an abductive approach one moves back and forth “revising, supplementing and replacing old theories with new insights” (page 24). Since one of the analytical tools I am basing my analysis on (Estrada et al. 1997) was published ten years ago, I expect there to have been some changes which may render the old terminology and classifications outdated. Moreover, as explained previously, I am using Najam’s (1995) 5C Protocol as an additional analytical tool, because it allows me to go beyond description, making up for the shortcomings of Estrada et al.’s framework. In the final chapter of this thesis I will discuss how this framework can be enhanced to better suit new challenges.

3.1.2 *Generalizations in qualitative studies*

In the traditional sense, generalizations are what produces laws and makes educated guesses about events possible, by stating that what is the case in one place or time will also be the case elsewhere, where the same conditions are given (Lincoln & Guba

1979). The case study method has been criticized for not being able to lead to any generalizations in the classical meaning of the word, because the cases are not representative for the whole population (Bergene 2005) and cannot be used in predictions. It is true that a case study does not tell us anything about the expansion of a social phenomenon, rather, writes Yin (1994:21), the purpose of a case study is not to generalize in order to formulate a scientific law, but to “generalize to theoretical propositions”. Yin puts forth the idea of the “analytical generalization”, meaning conclusions drawn from a case study to develop new theories and concepts or revise old ones. Yin (in Smaling 2003) recommends a *replication logic* instead of quantitative research’s sampling logic aimed at statistical representativity. The theory that is ultimately formulated becomes the vehicle for analytical generalizations to future case studies, giving directions on how to approach them, as long as they fit within the scope of the theory. This will be discussed further in Chapter 7.

In an effort to separate the qualitative terminology from the quantitative, Thagaard (1998) uses the term *transferability* instead of generalization or generalizability. Transferability is simply a question of whether or not the interpretation developed within the frames of a project has relevance in other, similar situations. It is especially important in case studies that are directed towards the development of knowledge with a more general relevance. It involves a *recontextualization*, meaning that the theoretical understanding of a project can be put to use in another, broader context. This way, a single-case research project can add to a more general theoretical understanding (Thagaard 1998:184).

3.1.3 *Validity and credibility*

Closely connected to the issues of transferability are issues of validity and credibility. Yin (in Bergene 2005) differentiates between three kinds of validity; *construct*, *internal* and *external*. *Construct validity* is a question of whether or not the researcher is actually investigating what she means to investigate. This can be enhanced by focusing on asking relevant questions to relevant people and by triangulation; the use of multiple methods and sources of information. During the fieldwork, I spent time re-writing my interview questions, making them fit the informant’s field of expertise. When analyzing my topic, I have used additional sources such as scientific journals, books and newspaper sources. *Internal validity* concerns, in Bergene’s words: “the possibility to judge the plausibility of the inferences” (2005: 29). In this chapter, I describe my fieldwork, my interviews and how I analyze my finding in great detail,

making it more transparent, in order to strengthen the internal validity. Lastly, *external validity* deals with the transferability of the findings. In my case one may speak of external validity for example if one can expect the experiences of other European companies in the Chinese context to be similar to those of Shell. This will be discussed further in Chapter 7.

There are also several important aspects regarding credibility that need to be considered when working on a research project. Bergene cites the “replicability” of the findings and the possibility of checking the sources (2005:29). To that end, all my secondary sources are cited in Chapter 8 of this thesis. As regards my interview transcripts, however, my informants are all anonymous and therefore names and interview transcripts will not be disclosed. The implications of this will be discussed further below. One can also increase the credibility by quoting one’s informants (Bergene 2005). Since I decided not to tape the interviews, there will not be any verbatim quotes, but I will nevertheless have to consider the context in which something was said when referring to someone’s statement. Non-verbatim quotes can also be out of context, and even if it does not have any repercussions for the informant, it may influence or alter the inferences made from the material gathered.

Issues considered sensitive are still subject to restrictions and censorship in China. I do, however, not believe everything published there or by Chinese authors is “Party propaganda”, but realize that in using material from Chinese sources I have to be critical. The literature and statistics used in this thesis, however, are published by renowned international institutions such as for example the United Nations or the World Bank, thus enhancing their credibility. I do not find it likely that any of my informants were answering according to what they thought I wanted to hear, as warned by Thagaard (1998) or that the relationship between me and them influenced their answers in any significant way. This is more likely to happen when the researcher is in a situation of power, which was not the case here since my informants were all selected for their expertise. There is always the chance that the natives of the country or place being analyzed want to give a favorable impression of their home, but since all my Chinese informants seemed to agree with me on the seriousness of China’s environmental challenges, I have little reason to believe they were glossing anything over. Among my informants there were friends or former colleagues of one of my supervisors, which made me trust them to take my interviews seriously.

3.2 My fieldwork and interviews

Heimer and Thøgersen (2006:1) describe doing fieldwork in China as an “eye-opening but sometimes also deeply frustrating experience”. I have met several people that, without much prior knowledge of China, and none of the Chinese languages, have travelled there to conduct fieldwork. This to me is at the same time very impressive and a little disturbing. Having spent two years as a language student in Beijing not only made my topic more interesting and important to me, it also made the fieldwork a lot easier. Coming to China this time, I had contacts, a place to stay, friends that were happy to see me, and knowledge of Beijing and Shanghai which made getting around easy. I had sufficient knowledge of Mandarin to talk about my thesis, ask questions and take notes when interviewing people whose English was less than perfect, which made a world of difference. When doing *any* fieldwork, there are great many things that need careful planning and consideration. Doing fieldwork *in China* provides the researcher with additional challenges.

3.2.1 Planning a fieldwork in China

Restrictions on doing fieldwork and research in China are not fewer now, but they may be different than they were a few decades ago. These days it is easier than before to talk to ordinary people and organizations or groups, but getting inside government institutions will still seem like an uphill battle (Heimer & Thøgersen 2006). Talking to someone in the hugely complex Chinese state bureaucracy would probably have been useful for me too, but none of my contacts was ever able to get me anywhere near. Government information on issues that are open to the public is available on the Internet, but what is open to the public is seldom the interesting material, as there are limits to what sort of information foreigners and even Chinese academics have access to (Heimer & Thøgersen 2006). The fact that it is not clear what is restricted and not, can be both an advantage and a disadvantage. Research reports, Heimer & Thøgersen (2006) claim, are seldom of any interest to Chinese authorities. They also write that when urgent problems are made public and the government has acknowledged them, they become much less politically sensitive. This happened to questions of poverty and unemployment in the 1990s and has since then happened to environmental issues, explained one of my informants, the expert on Chinese energy policy. The environmental challenges facing China are not a secret and are thus not *as* sensitive as they used to. In the words of Heimer & Thøgersen (2006:13): “[p]olitical sensitivity thus becomes a question of timing as well as of the audience and the use of the informa-

tion". I believe the timing of my study is right since the topics are both less sensitive and of current interest. As to the audience and the use of the information gathered, this is a student project, and if Heimer and Thøgersen are right about the Chinese government in general not caring about scientific reports, there should be little reason to worry.

A related issue concerns the informants' right to anonymity, which, as mentioned above, cannot be stressed too much. It is hard for a foreigner to decide what kind of information will be deemed sensitive or confidential in another country, but one does not need to know a lot about China to understand that the situation is quite different than in Norway. It is crucial that a researcher tells the informant about the right to anonymity and confidentiality. First, the informant may not have considered the sensitivity of the issues in question and may be endangering him or herself without knowing it. Second, uncertainty about confidentiality may prevent the informant from talking freely and provide useful information. As my informants were all people with higher education and some degree of experience in scientific work and public relations, I expected them to be aware of issues such as this, but would nonetheless ask them about their preferences. Upon contacting them for the first time, I enclosed a short presentation letter in the e-mail, stating the aim of my research, the confidentiality of the information gathered and the informant's right to remain anonymous. My expectations were that Chinese would wish to remain anonymous, but only one of them did. In an effort to err on the side of caution, they will all nevertheless be kept anonymous. This concerns the internal validity and the credibility of my thesis, since it means the reader cannot know who the informants are. I do not think this weakens my analysis, interferences and conclusions, however, since it is the information they provided me with, and not their identities, which is of importance.

Some degree of self-critical introspection will always be called for when doing a qualitative research project (Valentine 1997). This is where you reflect on your *positionality*; because the researcher's identity may influence and shape the interactions with the informants. The concept of positionality was already touched upon above regarding credibility, but is also relevant here. In some cases it can be problematic; a First World researcher in the Third World countryside can, for instance, produce a kind of "colonizer versus colonized" situation (Valentine 1997:124). This I do not see as a problem in urban parts of China and having spent much time in the country prior to the fieldwork, I know it well enough to avoid any obvious *faux pas*. I

also did not get the feeling that my being a young woman influenced the informants' views of me. It is very common for women to take higher education in China, and no one seemed to question my abilities. On the contrary, *age* seemed to be more significant, as Chinese graduate students are generally younger than Norwegians. The Chinese would assume I was younger than I was and upon learning my age, wonder why on earth I was still in school. Here, being able to tell them I had spent two years studying Mandarin at a prestigious Chinese university was good. The fact that I was older than some of them thought may thus have been an advantage as it made me seem more mature and experienced.

In addition to positionality, there are a myriad other things to consider when doing fieldwork, some of them China-specific. One example is that knowing I would be meeting scientists and professionals, and that several of the interviews would be held in Beijing's central business district, I had to choose my clothes accordingly. The hope was that the outfit would make me look mature and serious. The Shanghai and Beijing business districts are modern, multi-ethnic and fast-moving places. Wearing suitable clothes made me blend in which again boosted my level of confidence. Another thing to consider is how everything in big cities like Beijing takes time and needs rather detailed planning. I was aware of this and could plan around it. Knowing some things would take long and that there would not be time for more than one interview or one trip to the library a day, I planned a seven week fieldwork.

Arriving in China, most foreign adults suddenly become illiterate; a frustrating realization for intellectuals and others alike. For this and other reasons, my two years of language classes in Beijing have been of the utmost importance. I am able to read books and articles in Mandarin and it gives an enormous sense of accomplishment to find a very relevant and interesting text which you would not have been able to read if you did not know the language. For getting around the city, buying food and drinks and being able to print your revised interview guide, it is also of great importance, not to mention what I was actually there for; *talking to people*.

3.2.2 Interviews and informants

Sæther (2006) describes getting into the "China field" and in touch with scholars working on China as a rather harsh screening process. Strict qualification requirements such as language skills and contextual knowledge are mapped out so as to prepare the student for what lays ahead, and I suspect also to weed out those with insufficient skills and motivation. In this process, the student will often see the scholar

as an *insider* in the China field, a genius who speaks and reads Chinese. Interestingly, this was exactly how I saw Sæther, years ago, when she suggested I get a scholarship to study Mandarin in China before writing this thesis. Having gained both language skills and contextual knowledge, however, it is still hard for a younger researcher to feel like an insider in the “China field”. Age and experience play a great part here and I have felt this gap profusely on several occasions.

There are a number of different ways to approach potential informants and one does not necessarily need to be part of any country’s “field” or group of academics. It does help to be connected though. I initially planned to get in touch with people via one or two “gatekeepers”. Gatekeepers are “individuals in an organization that have the power to grant or withhold access to people or situations for the purpose of research” (Flowerdew & Martin 1997:115). It would have been wonderful to have a gatekeeper holding the door to Shell China open, but this did not happen. The rest of my informants were not part of any group, and so the gatekeeper method did not really work out. After being let through the “gate”, or at least meeting their first informants, researchers often rely on “snowballing” to keep going, meaning that you use one contact to help you recruit another, who in turn can get you in touch with someone else (Flowerdew & Martin 1997). I tried the gate and the snowball, but my efforts were of little avail, as my contacts and informants were seldom unable to suggest anyone I could talk to besides themselves. I had been hoping my contact at Shell China would be a door opener, but although my interview with him was successful, the person he put me in contact with afterwards turned out to be less interested in my work. I was, however, lucky to have the chance to look through my own and one of my supervisors’ collection of business cards, which can almost be considered a currency in China. My fieldwork might have been next to impossible to accomplish had I not had my supervisor’s network to rely on and had I not met people in China myself. Valentine (1997) emphasizes the necessity of a contingency plan if your recruitment strategies fail. In China, however, pulling every far-fetched string you have and looking through the stack of cards you inevitably end up collecting may be more than a Plan B. In my case it was how I got the fieldwork done.

My fieldwork was conducted in English, Chinese and Norwegian in Shanghai and Beijing from October to December 2006. Wanting to explore the situation regarding energy and the environment in China, I interviewed and talked to professionals, academics, consultants and journalists with expertise on these topics. I started out in

Shanghai by attending the 3rd Shanghai Renewable Energies International Forum. Online information about the forum made me think it would be full of people I would both need and want to talk to. The forum, however, included numerous lectures, no time for questions or discussions, and a lot of new knowledge on topics irrelevant for my study. In the end I met only one informant here. In Beijing, I met with both Chinese and foreign people. The interviews were conducted in places suggested by either the informant or myself, mostly in their offices or a nearby coffee shop. The meeting with the Shell China representative was a particularly successful interview, even if I was nervous in the beginning, simply from knowing this would probably be the most important.

Towards the end of my stay, there were several interviews I was confident were going to happen that did not. I had been trying to prepare myself mentally for such a situation, as this kind of experience is so common I would almost say it is required in a fieldwork. I seemed to get nowhere; e-mails were not answered and excuses made on the phone, even from people who had already agreed to meet me for an interview. There was one case where I kept e-mailing a woman my Shell China informant had referred me to, pretending not to read between the lines of her reluctant and annoyed replies. It felt horrible. Here and on other occasions, I could have been more insisting, but a creeping sense of insecurity about my own project and abilities as a researcher kept me from being too pushy. I also think that turning up on the doorstep of someone who had told me “no” would have made both of us “lose face” and that a subsequent interview would have been awkward and of little use. Talking to other students and researchers I have learned that sometimes people will agree to a meeting to be polite, but really have little intention of keeping the promise. This is also a matter of “face” and is something foreigners are even taught in classes on Chinese business culture (Fang 1999). This, though, is not to say that I did not succeed in finding some very interesting people to talk to.

As the fieldwork progressed my interview guide became more like a checklist I would adjust before each interview to better fit the informant. I would also bring letter from my supervisor at the university, stating that I was indeed a student and expressing gratitude for any help lent to me. I would give this to my informants together with my business card, but I saw it more as a formality, as few of them seemed to care.

Many researchers choose not to use a tape recorder when working in China because they do not want the informant to feel inhibited knowing that his or her statements will go on a “permanent record”. As discussed above, it is difficult for an outsider to know exactly what is deemed sensitive in China, so it feels better to be on the safe side. I had decided not to tape my interviews which meant I did not have to transcribe the interviews either, at least not in the traditional sense. During the interviews I would take notes, furiously scribbling down everything I thought important, praying I would be able to read my own handwriting afterwards. After each interview I would go home and type it up, relieved to be able to make sense of the mix of English, Chinese and Norwegian shorthand. One challenge I faced was not to get my own meanings and interpretations mixed up with my informant’s words, as I tried to write full sentences and paragraphs. Not using a tape recorder has the disadvantage of not capturing people’s tones of voice, hesitations, and feelings like frustration or eagerness. I feel that this disadvantage would have been greater had I been asking about personal matters. The people I met were professionals, some of them experienced public speakers, which makes me think they would not let their emotions shine through anyway and that little was lost when not taping.

Sæther (2006:42) describes fieldwork as a process saturated with insecurity, and states that “fieldwork is (...) about learning while coping with multiple sources of insecurity”. This is certainly true, but there are ways to make sure this insecurity does not prevent you from accomplishing what you came to do. Being mentally prepared is one way, looking at it positively is another (try thinking: “I would not even have been trying to talk to them if it they are not successful, important and therefore busy people, so it’s really no wonder they do not have time for me”). I was expecting the fieldwork to be challenging and I learned a lot from trying to solve the problems I ran into along the way.

Table 3.1 List of informants and topics covered

No.	Informant	Main topics covered
1.	Chinese environmental consultant.	The Chinese environmental and energy situation; prospects for renewable energy sources in China; existence of political will for environmental protection and sustainable development; Chinese civil society.
2.	Norwegian energy and environment consultant.	TNC’s environmental strategies; the Chinese government’s approaches to environmental degradation; political will for environmental protection and sustainable development.

No.	Informant	Main topics covered
3.	American oil and gas industry adviser	TNC's environmental strategies; the business case for sustainable development; the Chinese government's approaches to environmental degradation.
4.	Chinese representative from Shell China.	Shell China's operations, environmental and social strategies including the HSE policy, dealing with the government and Chinese joint venture partners; TNC's environmental strategies.
5.	European director of China Environment and Sustainable Development Reference and Research Centre.	The Chinese government's approaches to environmental degradation. Chinese environmental social movements; political will for environmental protection and sustainable development
6.	European journalist and energy correspondent.	Chinese energy policy; political will for sustainable development and environmental protection; political instability and uprisings; environmental approaches of TNCs in China; development of pressure groups in China.
7.	Chinese professor of environmental economics.	The Chinese government's approaches to environmental degradation; political will for environmental protection and sustainable development.
8.	Norwegian expert on Chinese energy and environmental issues.	Chinese environmental degradation; energy policy; climate change policy; government environmental approaches; political will for environmental protection and sustainable development

3.2.3 Other sources of data

Conclusions reached in a research project will be more convincing and accurate if they are based on several different sources of information (Yin in Bergene 2005). The simultaneous use of different methods and methodologies is called triangulation, a powerful tool in scientific research since both qualitative and quantitative methodologies have advantages and can be used to deepen the understanding of the phenomenon under study. For this reason, supplementing the qualitative data with some quantitative data like statistics will be, in addition to the extensive use of theory and secondary literature, important for my case study. Using qualitative methodology does not mean excluding all quantitative data, and since I am doing a case study, additional data will help deepen the analysis and give a varied impression of the topics studied. The inclusion of other kinds of data answering the same questions may also enhance the construct validity of the study (Bergene 2005). When using both qualitative and quantitative data, it is important to remember that combining the two does not change their basic inherent logic and different scopes for generalization (Andersen forthcoming 2008). In an analysis based on qualitative methodologies, but with added quantitative data, the study is still basically qualitative and thus the conclusions on its general relevance will have to be based on the logic of analytical generalization.

Books, scientific journals, databases and relevant clippings from Chinese and international newspapers have been available to me from the libraries of FNI, the Nordic Institute of Asia Studies in Copenhagen and the University of Oslo. The collection of text material was open-ended and eclectic, and text analysis of relevant literature contributed importantly to the project's development and findings. My Shell China informant provided me with some material on Shell China, but I got most of the *interesting* articles on Shell from the FNI. Due to the "administrative tradition in China, where documentation is inherently sensitive and its distribution usually requires more leverage than just good will" (Nordqvist 2005:9), a lot of interesting data on Chinese conditions and strategies are not available to the public. What *is* openly available is frequently criticized for government censoring and thus deemed untrustworthy propaganda. This situation is not static, however, and some recent events make it a rather confusing picture. The censorship of the abovementioned World Bank report stands in sharp contrast to the regulations open government information issued by the same government earlier this year. The latter was called "a milestone on the path to guaranteeing the public's right to access environmental information" by a famous Chinese environmentalists (Ma 2007:1).

3.2.4 Making sense of the collected data

After doing re-writing the interview notes I would send the document to the informants for review, at the same time thanking them for meeting me. On one occasion I got the document back the same afternoon, pleased to see that the informant had gone through it, thoroughly correcting errors and adding important information. In cases where the informants wanted me to change something, I made the corrections at once. I would then send the document to myself on e-mail so that it would be saved on a server in Norway. This way I made sure I would not lose any material even if my computer crashed or was stolen. I did not include the names of the informants in any e-mails or attached files. Due to the limited number, I had no trouble telling my interviews apart.

I agree with Crang (1997) that an analysis should not be an afterthought, but needs to be included in the early research plans. I had been reading relevant empirical and theoretical material for months while preparing for the fieldwork and tried to keep it in mind during the interviews and the write-up of the notes. If an idea sprung to mind during the transcription, I would make sure not to get my own thoughts mixed up with the informant's words. I would do this by writing little clues like "similar to

A” or “relevant to theory B” using capital letters. Interpretation can not be divorced from the theoretical approaches adopted in a project, and keeping the theoretical material in mind at all times, helped me in the process of interpretation. Similarly, when analyzing my field notes, I went through the transcriptions doing “open coding” (Crang 1997:186); taking notes as ideas emerged about the topics in the material. When using open codes, there is a need for constant comparing of codes and their contents, comparing of new and old material, so all the themes and implications of the materials are drawn out (Crang 1997). Operating this way helped me clarify recurring themes that might be worth pursuing and see both small and big pictures. Specifically, I made notes identifying “barriers”, “possibilities”, “example of a *creative* corporate response” and other issues related to my theoretical framework. In identifying the barriers, I took special care to make a detailed and systematic list, also citing interviews or connecting them to other source material. Later, as the list grew longer it became obvious that many of them were related (and quite a few, indeed, irrelevant) letting me “boiled them down” to the three barriers which will be presented in Chapter 4.

3.3 Summary

Crang (1997) emphasizes the need to think clearly about one’s epistemology, that is; *how one can claim to know something*. In this chapter I have argued in favor of the credibility of this study by explaining and discussing the fact that, in qualitative methodology, “the researcher is her own research instrument” (Thagaard 1998:179). I have reflected on how my identity may influence the interview situation and my interaction with the informant. I have argued in favor of the validity and credibility of my study by describing the data collection process and data analysis. In my opinion, there are good reasons to believe that the information gathered is relevant and reliable. The construct validity of this thesis is enhanced first, by the use of multiple methods and sources of information; second, by interviewing people with relevant expertise and balancing the interviews with a selection of literature; and third, by discussing my work with my supervisors and others throughout the process of analysis and write-up. Next, the internal validity is strengthened by the possibility of the reader to look up the sources and by the detailed description of the data collection process. Lastly, the external validity will be discussed in the final chapter of this thesis, where I will discuss the transferability of my findings.

4 The Chinese context

“No country has ever before made a better run at climbing every step of economic development all at once. No country plays the world economic game better than China. No country shocks the world economic hierarchy like China.” (Fishman 2006:1).

Powerful-sounding quotes describing the rise of China and its future prospects seem a dime a dozen these days as people realize that understanding the Chinese will only become more important in the future. This chapter will provide information on the numerous factors that influence and shape China, thus helping to explain the causes and consequences of the barriers I am searching for and will present towards the end of this chapter.

4.1 Chinese economic development

From 1979 to 2002 China’s gross national product (GDP) grew by an average of 9.4% per year (Qu 2003), making China the fourth biggest economy in the world in 2004 (Yin 2004). Economic growth had already been happening for decades, however, but China needed to change its economic system, because economic development is not necessarily the same as human or societal development. Simply stating that a country has achieved economic growth hides important information. In the mid-1970s, China suffered from problems of forced withdrawal from the world economy due to the trade embargo imposed by the US; unproductive state-owned enterprises; the inability to feed its own population; labor inefficiency; and political alienation of the population (So 2006). Deng Xiaoping then set forth to develop a socialism “tailored to Chinese conditions”,¹⁰ combining central planning with market-oriented reforms so as to increase productivity and raise living standards and technology levels without exacerbating inflation, unemployment and budget deficits (So 2006). The government encouraged village enterprises and more self-management for the state-owned enterprises while increasing market competition. China started relying on foreign financing and imports while its industry starting producing for export. GDP growth per capita reached its peak at 175% in the 1990s (China Daily 2006). GDP *per capita* is still low by world standards, ranking 109th out of 229 countries in 2006.¹¹ Even though China may have achieved tremendous economic growth it is still an *undeveloped* and *under-*

¹⁰ <http://english.peopledaily.com.cn/dengxp/vol3/text/c1220.html>

¹¹ <https://www.cia.gov/library/publications/the-world-factbook/index.html>

developed country in many ways, however. The characteristics of an underdeveloped country, all of which China is struggling with, include low *per capita* GDP, labor surplus, resource-poverty and a population typically engaged in agriculture amidst widespread disguised unemployment and high population growth rates (Rui 2005). The quick economic growth has had a wide variety of consequences for both society and nature. On the positive side the transition has allowed hundreds of millions to lead middle-class lives (Economy 2004), even if both economic and social developments have been highly specific to the Eastern parts of the country. Today, the Chinese economy suffers from three structural weaknesses which the Asian Development Bank (ADB) cites as consequences of a *successful* rapid industrialization and modernization process: over-capacity in sectors like aluminum, cement and steel; a widening income gap; and growing threats to the environment (ADB 2006). Most important for this study, the fast growth and high investment rates have taken their toll on the environment as

“[f]or many years, the environmental impacts of industrialization have been exacerbated by the underpricing of land, energy, and water, which has encouraged overuse; by minimal investment in environmental infrastructure; and by weak enforcement of regulations governing the environment.” (ADB 2006:124).

The 11th Five-Year Plan (2006-2010) is meant to combat these structural weaknesses by emphasizing policies aimed at achieving *balanced, equitable and sustainable development*.¹² It seeks to avoid an “over-heated economy” and also gives special attention to social and environmental issues. Out of 22 goals, 16 relate to issues of population growth, resource use, the environment and standards of living (ADB 2006). The Plan calls for a 20% reduction in energy consumption per unit of GDP by 2010 and an estimated 45% increase in GDP by 2010.

In 2002 China had become the greatest receiver of FDI among the developing countries. Energy resources, comprehensive utilization and regeneration of resources and prevention of environmental pollution are among the *encouraged* sectors, while industries that cause pollution and damage natural resources and public health are *prohibited*.¹³ FDI is usually, by some, expected to create new production capacity and jobs; transfer technology and know-how; and create linkages to the global market-

¹² <https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html>

¹³ <http://www.china.org.cn/english/features/investment/36739.htm>

place. It is criticized, however, for crowding out local industry; using up natural and human resources; disregarding working condition standards; sending all profits home; and for being part of pollution haven strategies (Dicken 1998). FDI is often seen as favorable for developing countries because of its nature as a stable, long-term investment in infrastructure, equipment and organization (Svendsen 2005). The Chinese government now wants to steer FDI toward less developed regions of the country and the manufacturing of higher-value added products, using tax breaks as incentives.¹⁴ It claims to focus increasingly on the *quality* of foreign investments rather than *quantity*.

4.2 China's environmental context

One can easily be overwhelmed by estimates saying pollution costs the Chinese economy 7-10% of GDP each year,¹⁵ while knowing that the country was going to spend only about 1.5% of its GDP on environmental protection in the years 2006-2010 (Liu 2005). The environmental challenges of China are complex and their reasons include historical, social and political factors (Siciliano 2006). China has a long history of achieving industrial growth and economic gain at the expense of the environment, (Economy 2004), but the real large-scale projects came about during the Great Leap Forward and the Cultural Revolution; overzealous attempts of “modernization” in which large swaths of forest, lakes and rivers were destroyed to enable grain-planting projects and dam constructions (Siciliano 2006). Coal provided the energy for quickly expanding industry while at the same time releasing harmful compounds into the air. Today China's environmental degradation takes many forms.

4.2.1 Environmental degradation in China

China struggles with severe pollution of its air and waters, as well as deforestation and desertification. Moreover, it is vulnerable to the potential effects of climate change. Regarding *air pollution*, oil, coal and gas are produced, distributed and used in China, their harmfulness taking the shapes of spills, mine accidents, explosions and emissions. Air pollution is traditionally caused by the use of coal in industry, households and for heating, but today the dramatic growth in automobile use is pushing the traditional culprits off the throne (Gallagher 2006). According to some estimates, China surpassed the US as the world's largest emitter of CO₂ in 2007, a decade earlier

¹⁴ <http://www.china.org.cn/english/features/investment/36739.htm>

¹⁵ <http://www.state.gov/r/pa/ei/bgn/18902.htm>

than anticipated,¹⁶ and consumes more coal than the US, Japan and Europe combined (Economy 2007). In a situation of energy consumption growth *status quo* China's increase in greenhouse gas (GHG) emissions is likely to exceed that of all industrialized countries combined over the next 25 years.¹⁷ Combustion of fossil fuels causes acid rain which leads to poisoned soil and ground water causing, sometimes lethal, damage to humans, livestock and agriculture (Economy 2007). *Access to water and water pollution* is among the most serious environmental challenges facing China (Economy 2004). Runoffs from petroleum processing and petrochemical plants have resulted in the dumping of toxic wastes into nearby waters. This affects humans through its effect on vegetation, livestock, fish, and the human body itself. China also struggles with *deforestation and desertification* which can be caused by over-exploitation of natural resources, wildfires and pollution.¹⁸

Today scientists and others largely agree that *global warming* induced by human activities is indeed happening (IPCC 2007). A warmer climate may lead to changes in weather patterns; a rise in sea level from polar and glacial ice melting and a wide range of other impacts on plants, wildlife and humans. The processes of climate change and global warming are still controversial, but the Intergovernmental Panel on Climate Change (IPCC) concluded in 2007 that, first, a warming of the climate system is *unequivocal*, and second, that most of the observed increase in globally averaged temperatures since the mid-20th century is *very likely* due to the observed increase in GHG concentrations caused by the burning of fossil fuels. Certainly not everyone agrees with the IPCC's conclusions, but they have, on the global level, nevertheless influenced the views of policy makers and academia significantly. The highest levels of GHG emissions which lead to climate change come from the production and combustion of coal, for which China is notorious. The energy industry is therefore a central factor in fighting the climate change threat and much will depend on its responses. As a developing country with a large but geographically concentrated population, China is very vulnerable to the devastating impacts of climate change. The necessary physical and social infrastructures are not in place to handle major environmental disasters. As elsewhere, the poor, most scarcely

¹⁶ <http://www.reuters.com/article/environmentNews/idUSL2080219120070620>

¹⁷ <http://www.nytimes.com/2006/06/11/business/worldbusiness/11chinacoal.html?ex=1307678400&en=e9ac1f6255a24fd8ei=5088partner=rssnyt&emc=rss>

¹⁸ <http://www.planetark.com/dailynewsstory.cfm/newsid/43083/story.htm>

equipped to protect themselves and with the least knowledge of the situation, would be hit the hardest (World Bank/SEPA 2007).

Energy consumption's effect on the environment has become a priority area for the Chinese government (Heggelund 2007). China has ratified the UN Framework Convention on Climate Change, the so-called Kyoto Protocol, but has not agreed to any binding emission reductions.¹⁹ The country is perceived as more forthcoming than before in international negotiations, but prospects of significant emission reductions are not realistic under the current policy environment (Heggelund (2007)). China is focusing on technology development and transfer whilst stressing that emission reductions should not come at the expense of economic growth.

4.2.2 Environmental authorities

China is a country with a large state apparatus which division of labor and responsibilities is complex. The most obvious actor among its environmental authorities, the State Environmental Protection Administration (SEPA) is an agency directly under the Chinese State Council, the chief administrative authority which is chaired by the Premier. SEPA is responsible for environmental protection including drawing up national principles on global environmental issues; administrating international cooperation on environment; and participation in and coordination of important international environmental activities.²⁰ Since the 1990s environmental protection bureaus have been established on the local levels (Ho & Vermeer 2006). The Ministry of Foreign Affairs (MFA) is a second key actor, especially important because since climate change policy is part of foreign policy issue in China, it is the head of the climate change negotiations (Heggelund 2007). A third key actor is the National Development and Reform Commission (NDRC), responsible for national economic policy and planning as well as energy policy and the energy bureaus. Despite the MFA heading the negotiations, the NDRC is the coordinator of China's climate change activities, while the Ministry of Science and Technology is in charge of the Clean Development Mechanism.²¹ The Department of Foreign Affairs of the NDRC is in charge of cooperation between the Commission and international organizations, foreign government

¹⁹ <http://www.eia.doe.gov/emeu/cabs/chinaenv/html>

²⁰ http://english.sepa.gov.cn/xztz/jgz/gszn/200606/t20060630_50000.htm

²¹ An arrangement under the United Nations Framework Convention on Climate Change which allows industrialized countries with a GHG reduction commitment to invest in projects that reduce emissions in developing countries as an alternative to more expensive emission reductions at home. <http://cdm.unfccc.int/index.html>

agencies and foreign institutions, including foreign companies investing in China.²² A foreign company looking to invest in China would therefore deal with them and not the MFA. Climate change being foreign policy to the Chinese, but absolutely a matter of environmental conservation and public health, it could in theory be part of either of these institutions. This is, however, dealt with only superficially in their public materials online, in the form of a hyperlink to the Kyoto Protocol. It is not clear to the reader whose responsibility climate change issues are. China thus lacks a framework with an explicit delegation of environmental responsibility between the numerous governmental bodies and clear directions on who pays for what. The structures of authority seem fragmented by both function and territory, which could lead to “turf wars” between entities (Zhou 2007). In particular, the interests of more powerful agencies such as the Ministry of Finance and the MFA will take precedence over those of SEPA. SEPA is in charge of more than it can handle and afford while simultaneously, in cases where it “loses a turf war” to another agency, may be stuck cleaning up the environmental mess of others, and paying the bill. An upgrading of SEPA to the ministerial level and an expansion of its funding would help counter this.

SEPA is responsible for and required by law to implement environmental policies and enforce environmental laws and regulations, in accordance with the government’s rather ambitious “green strategy” from 2000 (Economy 2004). The strategy includes developing a circular economy; increasing resource-use efficiency; developing clean production; reducing pollution costs in production processes; reducing the ecological impacts of consumption; developing new energy resources; reforming production methods; moving toward an ecological industrial civilization [*sic*]; and creating a balanced ecological environment.²³ Environmental protection thus has the potential to slowly change from end-of-pipe kind of management to supervision and control of the entire process. The Cleaner Production Promotion Law from 2003 requires full control over the entire production process in order to reduce pollution and promote sustainable use. The Environmental Impact Assessment Law requires all authorities at city level and above to make ESIA’s when making plans for land use; construction and development of districts; river basins; and sea areas. Also, a five-point strategy to address environmental problems has been developed by SEPA (Economy 2003). This strategy involves environmental policy guidance from the

²² http://en.ndrc.gov.cn/mfod/t20050520_0888.htm

²³ http://english.gov.cn/2006-02/08/content_182528.htm

centre; devolution of some power over environmental protection to local authorities; broader cooperation with the international community; enhancement of the environmental legal system; and most importantly here, the development of grassroots environmentalism. By permitting the activities of NGOs, government-organized non-governmental organization (GONGOS) and the media in environmental protection, the government hopes to fill the gap between its need and desire to improve the environmental situation and its capacity to do so. There will still be restrictions on what parts of environmental conservations NGOs and the media are permitted to be active in,²⁴ but this nevertheless shows significant progress. The 11th Five Year Plan also includes numerous points on environmental protection showing that concern with the environment is indeed growing, stating for example that ecological deterioration in China is not under control (Ho & Vermeer 2006). To reach goals such as that, words must be translated into action, but the Program is criticized for lack of details on the policies and reforms necessary to accomplish this (Li 2007). Implementation and enforcement of environmental laws and regulations are therefore among the greatest challenges to the environment and sustainable development in China, and this has become a focal point for the Chinese environmental authorities. China has built a system of environmental laws which is comprehensive, but still flawed (Ferris & Zhang 2005). Van Rooij (2006) explains that despite campaigns to tackle problems of weak enforcement, serious pollution violations keep recurring as huge challenges of non-compliance and imperfect enforcement remain. This laxity may be rooted in conflicts of interest between national regulation and local stakeholders. Regulations are a means to improve the quality of air, water and soil, but negative consequences such as the shutting down of polluting factories will have much more tangible and immediate impacts on local stakeholders than will for example acid rain. If a law lacks local legitimacy, local actors are likely to resist enforcement and until a balance of interest is found, compliance will remain difficult (van Rooij 2006).

There are some signs implying that things are looking up. China is increasingly involved in international environmental cooperation. In addition, there is the China Council for International Cooperation on Environment and Development (CCICED) which has been successful in articulating high-level advice and assisting Chinese decision-makers in understanding the links between environmental protection and

²⁴ Whether or not “real NGOs” exists in China and what roles they play in the Chinese society at large is a question I do not have the opportunity to discuss here. The interested reader can look up Economy 2004 and Kjelsvik 2005.

economic development.²⁵ CCICED's recommendations are used by ministries to develop policies and incorporate environmental considerations in their five-year planning processes and have contributed to a better public understanding and awareness of environmental issues in China. This implies an increasing openness about the challenges the country faces and that environmental issues are not as politically sensitive as they once were.

4.3 Energy consumption and policy

The security of energy supply is a country's ability to supply its industries and the rest of society with enough energy to meet demand at a price that protects economic growth. Since all economic activity requires the use of energy, energy security is an important component of both energy and economic policy. China needs energy security to keep up the pace because high levels of energy use are the fuel of its industrialization and economic growth. However, there are several reasons why China needs to become more energy efficient. Keeping the economy going and growing with the limited amounts of resources China is endowed with is one reason. Second, since fossil fuels are the main drivers of economic development, whoever has it and can sell it, is very powerful, making fossil fuels important factors in the world's geopolitical situation. Third, the primary energy consumed in China in 2004 was made up of 67.7% coal, 22.7% oil, 7% hydroelectricity and 2.6% natural gas (Cui 2006). Even though China wants to "cool down" its "overheated" economy, its production and consumption are not likely to decrease much, meaning that energy will be just as important. The solution to this is energy efficiency; the use of renewable energy sources; and cleaner use of fossil fuels.

China's energy situation is different from that of other developing countries. First, China's *per capita* energy use and GHG emissions remain comparatively low at about only one quarter of that in the US and half that of the UK (Adam & Vidal 2007), yet the overall consumption of energy and the resultant CO₂ emission are substantial, because of the population size and coal consumption intensity. Second, both the amounts of energy and CO₂ consumed per dollar of GDP have decreased in the past 20 years. This has been achieved through governmental energy conservation strategies, adoption of more modern industrial equipment and reduction of coal and petroleum subsidies. Third, China has a strong state and big and complex bureaucracy. Due to

²⁵ <http://www.cciced.org/cn/index.asp>

their scale and financing, decisions on major projects in the energy industry are invariably made on high political levels, such as by the State Council and the NDRC (Kambara & Howe 2007). In the 1990s China started converting its centrally planned economy and non-competitive-minded administration into one in which independent units aimed at improving their efficiency and utility by cost reduction, innovation and capabilities to conform to market needs. Some ministries were converted to bureaus which could establish commercial entities operating like modern corporations below themselves, such as China National Petroleum Company (colloquially PetroChina), China Petroleum and Chemical Corporation (Sinopec) and the China National Off-shore Oil Company. The three companies are supposed to learn the skills that will help China develop its energy industry through joint ventures (JV) and cooperation with foreign companies (Kambara & Howe 2007).

Industry is the largest consumer of energy, but residential consumption has increased its share over the past decade.²⁶ Experts had predicted it would not happen for years, but in 2007 Dutch scientists released figures saying China had overtaken the US as the world's top CO₂ emitter by an amazing 8% (Adam & Vidal 2007). A soaring demand for coal to generate electricity and a surge in cement production were identified as the culprits. Some emission mitigation strategies exist, focusing on technologies to reduce emissions from industrial boilers and motors and improving vehicle's efficiency. China is focusing on natural gas, clean-coal technology, combined heat and power plants as well as wind, solar and hydropower, but reducing the dependence on coal as the primary energy source has, however, so far been unfruitful (Wang & Li 2005). China is not obligated to reduce emissions under the Kyoto Protocol, but policies focusing on cutting energy costs and reducing local pollution still have the auxiliary benefit of reducing carbon emissions.²⁷ In 2006 the new Renewable Energy Law set a goal of having 15% of China's electricity coming from alternative and renewable energy sources by 2020 (Coonan 2006). The NDRC emphasizes that "developing renewable energy is an important measure to ensure energy supply, improve the energy mix, protect the environment, eliminate poverty and promote sustainable development" (Wang 2007:14). The successful implementation of this law seems difficult, however, since it is a "framework law" and many other rules and regulations need to be formulated to compliment it.

²⁶ <http://www.eia.doe.gov/emeu/cabs/chinaenv/html>

²⁷ <http://www.eia.doe.gov/emeu/cabs/chinaenv/html>

Moreover, “the Chinese government’s ability to implement environmental laws and policies is generally deficient” (Wang 2007:36) and the weakness of the environmental state agencies and laws lacking in local legitimacy are examples of this.

4.4 Historical, cultural and political factors influencing the environment

The need for an outward impression of harmony is a superior principle in Chinese politics and administration (Nordqvist 2005). Independent political initiative is suppressed and society under surveillance so that organized political opposition can be spotted and threats dealt with. Thus, China lacks a free press and civil society movements which in other countries fill important roles for example when it comes to environmental protection, awareness-raising and criticism of polluting companies. There are reasons to expect policies on freer flow of information, as a draft ordinance on openness of information is being written in 2007.²⁸ However, considering the wish for outward harmony “it is an openness that smacks of public relations” (Bandurski 2007:35). A freer flow of information would have the potential to pressure both governments and private companies on all levels to be more accountable for their actions, but Bandurski wonders if the Chinese leaders are ready to match their promises with progress. The government has, however, come a long way in acknowledging many of the challenges the country faces. As exemplified by the fact that China is engaged in broad-scale international cooperation on environmental issues, such issues are not as politically sensitive today as they were only a decade ago and many people in the know think political will to counter the negative trends exists (Economy 2004; Schreurs 2006; Vennemo et al. 2006). One sign of this is the rules recently issued by the government meant to increase official transparency, requiring companies and government departments to publish their environmental records (Jun 2007), perhaps countering Bandurski’s (2007) skepticism.

The desire to avoid social unrest is related to the goal of a harmonious society. Environmental degradation and pollution were acknowledged as leading causes of social unrest already in the mid 1990s (Economy 2007). The role of environmental social movements has been changing, however, and this may help the situation. In the 1990s the Chinese leadership gradually withdrew from its responsibility to meet all the social welfare needs of the population and welcomed greater public participation

²⁸ Officially known as the Government Information Release Ordinance and approved “in principle” by Premier Wen Jiabao on 17th January 2007 (Bandurski 2007).

to some extent. SEPA's five point strategy has allowed the establishment of what Economy (2004) at least sees as genuine environmental NGOs, partly to compensate for the weaknesses in its formal environmental protection apparatus. This is a way to reconcile their desire to achieve both unimpeded economic growth and improved environmental protection. Environmental protection is important *per se*, but also because deterioration can lead to protest and civil unrest. It is thus recognized that environmental social movements have a role to play, but there are still restrictions on their activities. NGOs, grassroots and community-based organizations constitute an increasingly important part of what the World Bank at least sees as an emerging civil society in China.²⁹

The traditional notion of harmony in Chinese culture also includes a harmonious relationship between man and nature, making environmental protection a necessity for social stability (Vennemo et al. 2006). Economy (2004), however, emphasizes how the environmental challenges China faces result not from decades but centuries of abuse of its natural resources, explaining how “[n]ation building, war, and economic development have all exerted unrelenting pressure on land, water, and forest resources” (2004:27). Societal doctrines will influence a place's politics towards nature. In China, we first have the legacies of Confucianism, Taoism, Legalism and Buddhism sharing what Economy (2004:3) refers to as a “healthy respect for the importance and power of nature to shape man's conditions”. The land and the agricultural system were seen as the source of all value and virtue, but ideas about man's ability to conquer and control nature for human needs still developed in Confucianism. During Maoism, upon trying to catapult China into communism and a fully industrialized society, there was massive destruction of the natural environment. The decades of Deng Xiaoping rule set the stage for new “state-sponsored campaign[s] to exploit the natural environment for the purpose of economic development” (Economy 2004:59). This provided a poor foundation for the building of a sound environmental protection apparatus, one consequence of which is, as mentioned, that SEPA is less powerful than other ministries resulting in environmental concerns frequently being set aside to reach economic goals, emphasized among other by my informant at Shell China. Economy (2004:27) describes the situation this has led to as a “deeply rooted cultural tradition that accords little value to some of the core

²⁹ <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/CHINAEXTN/0,,contentMDK:20600359~menuPK:1460599~pagePK:141137~piPK:141127~theSitePK:318950,00.html>

elements of effective environmental governance: independent scientific inquiry, a transparent political system, and accountable leadership”. First, the development of a modern scientific rationalism has been hampered not just by Maoism/Marxism-Leninism, but also by Confucianism, for centuries, because Chinese scholars’ concern with preserving doctrinal orthodoxy constrained their ability to think and question freely. The punishments for criticizing or even questioning the dogma kept scholars from developing a sense of personal responsibility, initiative and risk-taking. Thus, the expert community has not been able to provide informed and useful analysis to the political elites, something which could potentially have prevented an environmental disaster of the scale we are witnessing today. Recently, vice-Premier Zeng Peiyan was quoted saying the quality of research into pollution in China is not very high (Yuan 2007), a consequence of this legacy. Second, there is the matter of the non-transparent political system for which China meets severe criticism. Third, the matter of an accountable leadership includes the fact that responsibility for environmental protection is often delegated to the lower ranks of the political structure or governmental departments lacking in power, and on a lower geographical level, reinforcing the tradition of promoting rapid economic growth at the expense of the environment, as political and economic interests at this level often coincide (Economy 2004).

4.5 Barriers in the Chinese context

Based on this chapter, I expect Shell China to be confronted by three main barriers to a more environmentally friendly energy production. These barriers’ potential effects on Shell China will be discussed in Chapter 6.

The strong state. “Strong state” here refers to an interventionist state which has the power to tax and regulate the economy, including industry and energy security, as well as withstand political and social challenges from non-state actors such as private local and foreign companies. I refer here only to the case of the Chinese state, *not* interventionist states in general. A strong, interventionist state is normally an asset in the formulation and implementation of environmental legislation. In China, however, even with its well-developed state bureaucracy and environmental legislation, I expect it also to serve as a barrier to the achievement and upholding of Shell China’s environmental goals and standards. This does not mean I assume the Chinese state is only a negative force vis-à-vis a more environmentally friendly energy production, on the contrary, but in accordance with my second research question I focus on the barriers, not the opportunities to such production. First, with its emphasis on guidance

of the public opinion the state may be hindering individual initiative. Individual efforts are important for progress on environmental issues, especially for the development of commitment to a cause. Second, in trying to achieve an image of harmony and avoid uprisings, the strong Chinese state limits the activism of environmental social movements, which, when free, play important roles in bringing about change through pressuring private companies to alter their behavior, the way such movements did to Shell in Europe in the 1990s. Environmental social movements are also of great importance to environmental awareness-raising. Third, in its role as owner of foreign energy companies' JV partners, the state influences the investments made by these partnerships, the way in which projects happen and how environmental concerns are integrated into them. One reason why this is possible is the fact that SEPA does not have full ministerial status nor sufficient power to influence other agencies and ministries. The notion of the state as sometimes incapable of addressing critical environmental issues is also part of the ecological modernization perspective.

Short-term economic perspectives. A barrier I expect to have significant contextual influence on Shell China and the actors involved in its business operations is what seems, according to my interviews to be a tendency of the Chinese to see things in and act according to short-term economic perspectives. China's economic growth and resource consumption are unsustainable in time as well as environment-wise (Zheng presentation 2007). China will by all likelihood continue to be an increasingly important economic actor, but its economic growth will not go on forever. When the economic growth slows down or stops completely in the future, it may be too late to preserve the environment, something which will no doubt have big consequences for China for example in term of food and energy security. The country reserves the right to develop its economy and raise its living standards the way the industrialized countries have done, refusing limits on its rising CO₂ emissions, because they historically and *per capita* are much lower than those of the developed countries.³⁰ What is so far making the continued economic expansion possible is the reliance on inefficiently used fossil fuels and industrial production at minimum cost due to an abundance of cheap labor and badly enforced environmental standards. Undeveloped environmental infrastructure, population size and a limited resource base add to the burden. This appears not to be just characteristic of the country's economic strategies, but also to influence the ways in which the Chinese think.

³⁰ <http://www.uofaweb.ualberta.ca/govrel/news.cfm?story=60995>

Conflicts of interest. Conflicts of interest relevant to the case discussed here can arise both within a company and between a company and external actors. It is common for foreign companies in China to have mainly Chinese employees (Fang 1999). Their JV partners are also Chinese; in the energy industry these are the national energy companies. The actors involved in a foreign company's energy production, perhaps especially the subcontractors,³¹ are likely to have differing views in environmental issues and their importance. This barrier has to do with environmental awareness levels and economic security. The former are generally low because environmental issues were politically sensitive for so long and not part of any kind of public debate (if, indeed, that exists). Even in cases where environmental awareness means someone is committed to an environmental policy, other goals such as short-term profits and energy security may prevent them from contributing to its implementation. For the foreign staff of a European company operating in China, on the other hand, acting in an environmentally responsible manner is a question of having realized that being "green" can be good for business; of environmentally-based social legitimacy; and of personal environmental concern. This, I expect, is caused by economic security and a longer history of focus on environmental issues.

4.6 Summary

Despite its recent economic "miracle", China is struggling with a range of challenges, of which its environmental problems are but a part. In this chapter I have outlined the recent decades' economic developments in China; the most imminent environmental problems; the state authorities relevant to the environment; the country's energy consumption pattern and politics; and lastly, historical, cultural and political factors which influence the environment. Energy security, crucial to continued industrial and economic expansion for the sake of higher standards of living, is among China's absolute top priorities. Its energy mix consists mostly of fossil fuels with coal as the dominant source. The current energy mix is causing environmental degradation in many forms, but this can be altered with energy efficiency; use of renewable energy sources; and cleaner use of fossil fuels. These have become priority areas for the government as well as the energy and environmental authorities. It is also an area in which foreign energy companies like Shell can contribute, but the extent to which it is able to do so, is influenced by barriers in the Chinese context. I have identified three main barriers as the role of the state; short-term economic perspectives; and conflicts of interest.

³¹ An individual or a company that performs parts of or all of the operations of another individual or company's contract.

5 The Royal Dutch/Shell Group and Shell China

The Shell Group is not what it used to be, that is, at least its image is not. The first aim of this chapter is to explain *why and how it happened* and *how it was possible* for a company which had been practically “most criticized” for the better part of the 20th century, to transform itself into the “most admired company in Britain” in 2001 (Taylor 2006). The second aim is to explain the 1990s’ “transformation” of the Shell Group and outline its 2007 environmental profile, in order to reposition it on the axis of environmental responses. This will, in addition to addressing my first research question, provide me with information needed for the analysis of what the Shell Group’s new environmental profile means for the Shell China. In the last part of the chapter I will outline Shell China’s business operations and other relevant information.

5.1 The Royal Dutch Shell Group

Shell is a global group of energy and petrochemicals companies, operating in more than 130 countries and employing approximately 108 000 people.³² In addition to its well-known roadside gas stations and exploration and production of oil and gas, the Group’s companies deliver petrochemicals and a wide range of energy solutions including coal, solar and wind power, as well as plastics and detergents (Skjærseth & Skodvin 2003). Shell does not produce nuclear power, which is emphasized in company literature (Shell 2002), but has recently taken up some of its coal operations again, in China only (interview Shell China). Today Shell has five global functional core businesses that, while independent, all comply with the same set of business principles (Skjærseth & Skodvin 2003). These core businesses are: Exploration and Production, Oil Products, Chemicals, Downstream Gas and Power, and Renewables (Shell 2000). Shell’s Renewable energy sources sector is developing wind, hydrogen and solar power opportunities and is among its newest additions, a part of the company’s strategy to diversify away from its core oil, gas and chemicals businesses. Even though its operations in solar and wind are minuscule when compared to the core businesses, Shell has become one of the world's largest investors in these sectors and in 2004 it ranked fourth worldwide in terms of sales of solar products.³³ Earlier attempts at diversifications were not deemed successful and all have been divested,

³² http://www.shell.com/home/content/aboutshell-en/at_a_glance/at_a_glance_09112006.html

³³ http://tata.com/tata_bp_solar/articles/20040104_Sunny_side_up.htm

apart from coal (interview Shell China). In Shell's post-2000 publications it is emphasized that Shell does not produce coal and some of coal consumption's negative consequences are listed (Shell 2002), thus omitting the fact that although Shell in fact does not *mine* coal, it is a part of its operations. Capital investments in 2006 totaled \$24 896 billion out of which 2% was in businesses other than the oil, gas and chemicals sectors.³⁴ Shell's revenues of \$318.8 billion in 2006 made it the second-largest corporation in the world, behind ExxonMobil.

5.2 Shell's environmental profile *anno* 1995

Estrada et al. described Shell's 1995 environmental profile as that of a pragmatic business-like approach with visions defined by society and goals set by governments. Aiming at providing flexibility to each of the Group's companies to define their own environmental strategy, it avoided "the excessive display of green values in its public image" (Estrada et al. 1997:96). Shell did not publish corporate environmental reports with inventories of emissions as a group, but Estrada et al. nevertheless concluded that it had stepped up its efforts to rebuild confidence and legitimacy after years of negative press and media-covered blunders. When the book was published in 1997 some changes had already taken place. On the project level, ESIA's were a routine part of the operations and managers faced liability for their own and their employees' actions. In R&D focus was on environmental efficiency and the development of clean technology. In the case of "confrontations" between regulators and company representatives, they happened on regional and local levels, where companies in the Group were more likely to be outspoken about their views. As a group, however, Shell spoke with one voice. In the 1990s new routines for environmental management and rather ambitious environmental strategies were developed, but some things nevertheless remained the same. On the issue of climate change in particular the whole industry was ambivalent (Estrada et al. 1997). The environmental progress in the 1990s meant that it paid more attention to and worked to minimize and avoid the most obvious and tangible environmental degradation such as oil spills and the potential devastation of the surroundings. This was an approach with a very local or regional focus, belonging to the first and second generations of environmental concern. The climate change threat on the other hand emerged as a *global* matter which was much more controversial and complex. Estrada et al. (p. 182) explain that while some of the companies studied were "hesitant,

³⁴ http://www.shell.com/home/Framework?siteId=investor-en&FC2=/investor-en/html/iwgen/quarterlyresults/2006/zzz_lhn.html&FC3=/investor-en/html/iwgen/quarterlyresults/2006/q4_2006_results_01022007.html

preferring a low profile”, others seemed “determined to fight the issue to the bitter end”. None of them had been persuaded to diversify away from the traditional fuels. Therefore, when it comes to climate change, Shell, as well as the others analyzed, showed elements of both reactive and cautious behavior. I want to argue, in accordance with Estrada et al. (1997) that Shell’s environmental profile at this point was *cautious*, but with both creative and reactive elements. Shell was a member of the Global Climate Coalition lobby and did not disclose its carbon emissions. On the other hand, even if in Shell’s eyes there was not enough scientific evidence to claim that an anthropomorphic climate change was indeed taking place, it nevertheless became the Group’s view that there was enough evidence of the potential risk for governments to address the issue. In the case of the energy industry erring on the side of caution also had other benefits than climate change mitigation which made environmental measures justifiable even if the concern over climate change would turn out not to be. Such benefits include offsets such as improved energy efficiency; technology export to the developing world; incorporation of environmental costs into fuel prices; halting deforestation and improving *reforestation*; speeding the elimination of chlorofluorocarbons; reducing emissions of sulfur and nitrogen oxide (Estrada et al. 1997).

Thus, Estrada et al. (1997) were left with ambiguous conclusions. First, the industry had realized that the environmental challenges were here to stay and that they had to take them seriously if the companies were to retain their social legitimacy, their licenses to operate. It was more than simple PR stunts, too, because large investments had been made and innovative technological solutions provided to its emissions problem. However, at the same time it did not publish its emissions; it kept funding organizations working to undermine political regulations on emissions; and was not positive to a tightening of rules on company behavior. Rather, Shell wanted a “level playing field”, an environment in which all companies in a given market follow the same rules and are given an equal ability to compete. It wanted governmental *guidelines*, the freedom to find its own ways of adhering where it saw fit and market-based instruments and measures should help reduce carbon emissions (Skjærseth & Skodvin 2003). For these reasons, none of the companies in the study by Estrada et al. (1997) fit the label “creative”, let alone Shell.

5.3 The transformation of Shell

There are several reasons why an in-depth study of Shell is interesting and why an analysis of the Group's environmental performance and agenda is relevant when one is curious as to how environmental management is taking place in big business and across borders today.

In 1995, "Europe's biggest company made the most public and controversial U-turn in the history of environmental campaigning" (Huxham & Sumner 1999:349) after a massive campaign by Greenpeace forced Shell to cancel its planned disposal of the redundant oil installation Brent Spar in the Atlantic. The same year, protestors called Shell shareholders "murderers", demanding that they be held accountable for despoiling the Nigerian Ogoni people's homeland and for provoking the Nigerian government to execute tribal leader Ken Saro-Wiwa and others to death for eco-terrorism (Mirvis 2000). Shell owned up to the environmental problems and worked on Saro-Wiwa's behalf with prominent African figures, but, citing its policy of "noninterference", did not take part in the ensuing economic and political sanctions against the Nigerian government (Mirvis 2000). Earlier, in the 1980s, Shell came under fire from and was boycotted by protestors as part of a campaign against the South Africa's apartheid system. Clearly, the Group had committed important errors in its environmental, community and communications strategies and some dramatic changes were due.

The Shell General Business Principles (box 5.1.) govern how each of the Group's companies conducts its affairs. Mirvis (2000) claims they were updated to include commitment to human rights and social and environmental reporting, but in the 1998 report "People and Profits – does there have to be a choice?" (Shell 1998) I find no explicit reference to human rights. Reporting and the external auditing of environmental and social performance are however emphasized.

Business Principle number five, which refers to the HSE Policy, is what is of most relevance to this study and will be outlined in some detail in Chapter 6. Shell emphasizes that it manages HSE matters as they would "any other critical business activity, [setting] targets for improvement, and measure, appraise and report performance" (Shell 1998:24). The argument seems to be that managing HSE in this way will in fact improve HSE management. In Chapter 2 I mentioned how a central point in the business case for sustainable development is that companies can *do well by doing good*. Turning it around, it also makes sense that they can *do good by doing well*,

meaning that efficient business management also makes environmental management more efficient.

Box 5.1 Shell’s General Business Principles

1. Economic	Long-term profitability is essential to business goals and continued growth. Without profits and a strong financial foundation, it would not be possible to fulfill the company’s responsibilities. Criteria for investment and divestment decisions include sustainable development considerations (economic, social and environmental) and an appraisal of the risks of the investment.
2. Competition	Support free enterprise and seek to compete fairly and ethically and within the framework of applicable laws, while not preventing the competition of others.
3. Business Integrity	Insist on honesty, integrity and fairness in all aspects of business and not accept any form of bribery. Employees must avoid conflicts of interest between their private affairs and those of the company.
4. Political Activities	Not make payments to political parties or organizations, nor take part in party politics, but insists on the right and responsibility to make its position heard in matters concerning itself, its employees, customers, shareholders or local communities.
5. Health, Safety and the Environment	Have a systematic approach to HSE in order to achieve continuous performance improvement, managing these matters as critical business activities. Seek ways to reduce the environmental impact of its operations, products and services continually.
6. Local Communities	Aim to be good neighbors and manage the social impacts of its business activities carefully, working to enhance the benefits to local communities and to mitigate any negative impacts from its activities. Take constructive interest in societal matters.
7. Communication and Engagement	Be committed to reporting its performance by providing full information to interested parties, subject to any overriding considerations of business confidentiality. Seek to listen and speak to employees, business partners and local communities honestly and responsibly. External auditing of publications.
8. Compliance	Comply with all applicable laws and regulations of the countries in which it operates.

Source :Shell 2005.

Shortly after Shell had published the new Principles, it left the Global Climate Coalition, a US corporate lobby group working to undermine the UN climate negotiations, and joined the UN Global Compact (Frynas 2003) and the World Business Council for Sustainable Development (Kolk & Levy 2001). It announced its support of the Kyoto Protocol and the fact that it is the Group’s view that an anthropomorphic climate change is a real threat which needs to be addressed without delay (Kolk & Levy 2001). This is a significant event since, as we saw in Chapter 4, climate change is nowadays largely considered the biggest threat to the future of the planet. Important here, the industrial and economic development of China is an important reason for the

steadily rising GHG emissions. In 1998 Shell started rating the Group's performance against each of the new Principles (Mirvis 2000), a milestone in Shell's efforts to improve its social and environmental record through self-scrutiny, two-way dialogue with stakeholders and disclosure of its performance. It worked to play a part in the formulation of international standards and guidelines and made commitments to adhere to a range of CSR instruments (Estrada et al. 1997). New instruments were springing up all over the place, and for the energy companies it became a matter of being perceived as "front runners", making a commitment before they reach their "peak popularity" (Boasson and Wettestad (2007).

The significance of not all, but some of these developments is easily exaggerated. The UN Global Compact, a key CSR instrument, is routinely criticized for being little more than "corporate greenwash" (Frynas 2003). There seems to be two main strands of criticism. On the one hand, the free marketeer perspective holds that CSR hinders the operation of the free market, breaking the "rule of corporate law" which says a company's directors are prohibited from doing any activity that would reduce profits,³⁵ because, contrary to Porter and van der Linde's notions of offsets and differentiation, they see CSR adherence and environmental regulatory compliance as extra costs only. Others claim CSR is essentially cynical and selfish because the companies are only doing it for sake of their own profits. The motivation for commitment is a highly debated issue which will be dealt with later on in this thesis. Sincerely motivated or not, however, *something* has happened and something *caused* it to happen. What then, made a company like Shell intent such an overhaul in the first place? Several events serve to explain the changes in company attitude.

The crises of the Brent Spar and the Nigerian case were the triggering factors behind the change, but according to Mirvis (2000) the whole process started already in 1994 when Shell, after a study of staff and corporate structure, underwent an extensive reform. The initial reason for the reform was that Shell was starting to lag behind its competition with worsening financial and retail results (Grant 2002). At the time it was also fighting, on the commercial side: hungrier investors, experienced competitors, savvy new market entrants and a faster-changing customer base (Mirvis 2000). On the social front it faced protestors and protests increasing in number, anxious politicians and a public with growing levels of environmental concern and cynicism. The committee of managing directors took note that Shell had misjudged

³⁵ <http://planningskills.com/library/article.php?id=3>

badly the pro-environmental sentiments of the press and public, as well as the sensibilities of its customers (Mirvis 2000). An examination of the Group's corporate culture showed mistrust in anything but hard facts and arrogance towards and lack of ability to dialogue properly with customers, stakeholders and adversaries. It was time to think "outside the box" to be able to alter the company culture and thus what came to be the "transformation" of the Shell Group was launched due to a commercial need, but became about much more as the company learned the hard way that it had to listen, engage and respond to their stakeholder groups (Frynas 2003). As it became obvious to Shell that business is inseparable from its social and environmental contexts,³⁶ it emphasized both "hard" and "soft" aspects of performance, and a few years later every part of it would be touched by change (Mirvis 2000).

Starting in 1997, the CEO of Shell went public with self-criticism in the aptly titled article "Shellman says sorry" (Mirvis 2000). Shortly after, the Business Principles were updated and the CEO was assigned responsibility for all ethical and environmental issues. Having acknowledged that anthropomorphic climate change caused by the burning of fossil fuels and subsequent release of GHGs *could be a possibility* in their annual report of 1996 – before it left the Global Climate Coalition – the Shell Group in 1998 announced its goal to cut the emissions of GHGs from its operations worldwide by 10% by 2002 compared to 1990 levels. This goal was reached in 2000 (Shell 2000). It also pledged to take account of potential GHG emissions from operations when making investment decisions on major projects, and to accurately measure, report and verify its own emissions performance. An internal GHG emissions trading system STEPS was established in 2000 (Skjærseth & Skodvin 2003). The practice of benchmarking began spreading throughout the Group as financial, social and environmental performance was contrasted with that of both competitors and top performers from other industries and presented to staff and analysts (Mirvis 2000). Reviews were conducted that emphasized transparency in operations and communication between all stakeholders. Compared to other companies, Shell faced growing evidence of "sub-optimal financial performance" (Grant 2002:8) which was largely attributed, by the company executives, to themselves and the company being "bureaucratic, inward looking, complacent, self-satisfied, arrogant" and tolerating their own underperformance. Moreover, its reputation in the public was far from favorable. To counter this, a working group formulated the Group's new "core purpose": "Helping People to Build

³⁶ http://www.shell.com/static/china-en/downloads/news_and_library/Yves%20Business%20Civil%20Society%2011092003.pdf

a Better World”, and set the goal of becoming the “World’s Most Admired Company” (Mirvis 2000:75).

There is a growing awareness of the negative side-effects of energy-intensive consumption patterns in the industrialized countries, leading to a growth in related legislation. Vision and image presented to the public may be an important indicator of change towards environmental friendliness and renewed social legitimacy, but the public wants results and is interested in what companies *do* rather than what they *say they do*. Showing commitment to CSR has got to be about more than just following the law. To achieve a good image based on the public actually *believing* that it wants to contribute positively and not only feed its shareholders stock portfolios, an energy company would have to support new environmental legislation; leave lobbies working against new legislation or in the favor of the energy industry; set stricter targets for their own operations; and invest more in new technology and renewable energy sources. *Showing* the public what it does necessitates transparency in operations and disclosure of results. To achieve this Shell started publishing a new kind of annual report depicting to what degree it was living up to its business principles. The first report, “Profits and Principles – does there have to be a choice?” was published in 1998 (Shell 1998). In the wake of this report and the abovementioned benchmarking, 62 contracts were terminated and one JV divested because of operations incompatible with Shell’s Business Principles (Shell 2000). Also, some senior executives were dismissed for lack of enforcement of the same Principles (Mirvis 2000). In an effort to change what was perceived as an arrogant corporate culture, executives did community service among homeless people in London and in an act symbolizing the birth of “new Shell”, they wrote letters of resignation to “old Shell”.

On lower geographical levels, one may expect the situation to be different. Management and workers may need training and probably quite some convincing to start implementing new policies handed them from above and not take money or time saving shortcuts on HSE issues. The physical and mental distance between the HQ and “the floor” is a problem shared by Shell and China which caused policy implementation challenges (interview environmental consultant). It will be discussed further in the following chapters. In the transformation, the operating companies in the 130 different countries Shell does business in lost some of their decision making power. It is possible that this has had both positive and negative repercussions. The corporate HQ may have more power over their five main business units than they did

over the country-level operating companies, but the local-level plants and its staff are still far away from The Hague.³⁷

5.4 Shell's environmental profile *anno* 2007

I will now use the six indicators of change introduced in Chapter 2 to describe Shell's environmental profile today. The purpose of this is to look for changes and progress that have happened since 1995, with the aim of repositioning Shell on the axis of environmental responses. I expect there to have been progress and changes which will be relevant when applying the framework to the case of Shell China in 2007, as opposed to the Shell Group in 1995. After all, most of the changes in Shell had only just begun to happen or were far into the future back then.

5.4.1 Environmental vision and image

Have an environmental vision and corresponding goals been established at the corporate level and how do they affect the company's image? Environmental awareness can be observed by studying the extent to which a company incorporates environmental concerns into the way it presents its objectives and responsibilities to its staff, shareholders and society in general (Estrada et al. 1997). Entering the 21st century, Shell was increasingly regarded as an economically sound and socially responsible company (Boasson & Wettstad 2006). Its view of environmental matters is one of seriousness and urgency, but with hope and opportunity, too. It has aimed to establish itself as a frontrunner, often with goals that go beyond regulatory compliance. Whereas in the past Shell called for a "level playing field" where all companies in an industry would have the same rules and regulations to follow, it abandoned this notion when it set company-internal emission reduction targets, effectively putting its own financial competitiveness at risk because of the potential costs associated with these reductions. I have not been able to determine whether the emission reductions have caused any product or process offsets, but it is Shell's official view that being environmentally responsible promotes innovation and increases its effectiveness (Shell 2003). This and other factors show that Shell has been working hard to improve its image. It is now perceived as a frontrunner in CSR, taking active part in the UN Global Compact, the Carbon Disclosure Project, the Global Reporting Initiative, the World Business Council for Sustainable Development, and the Global Gas Flaring

³⁷ In 1995 the Shell Group's organizational structure was altered and instead of having two headquarters, in both London and The Hague, only The Hague remained. <http://www.rh.edu/~stodder/BE/Shell1.htm>

Reduction Public-Private Partnership (Boasson & Wettestad 2007). What Shell is *specifically* doing to reach its environmental goals is (Shell 2006:11):

- Reducing emissions and setting own standards for emission reductions;
- Improving technology to capture and store CO₂ from fossil fuels;
- Providing natural gas, clean coal technology and advanced transport fuels;
- Working to build a substantial business using at least one alternative energy source;
- Calling on governments to introduce the policies needed to manage GHG emissions.

Regarding vision, it is Shell's explicit view that climate change is the most important of all social challenges confronting the industry, thus supporting the strong scientific consensus that recent changes in the global climate are almost certainly caused by human activity (Shell 2006). This is a new development from 1995 when supporting climate change mitigation was a means to "err on the safe side" (Estrada 1997:94), staying safely within the *cautious* category. Recently, Shell has been highlighted as one of the companies that best in dealing with the climate change issue (Boasson, Bohn & Wettestad 2006).

5.4.2 *Environmental management*

Have organizational changes been made to support the environmental goals on the corporate level? Shell's strategy is to manage environmental issues just like everything else, but it is obvious that energy companies struggle to convince a skeptical public of their sincere intentions. Communicating their efforts on impact assessments, product stewardship, environmental audits, accounts and reporting to the public can alter this situation. Shell's 1990s transformation entailed a comprehensive organizational change in which the Group got several new additions related to environmental management. Some examples include:

- Shell General Business Principles revised to include sustainable development and human rights and a strict governance process introduced (1997);
- Shell Renewables established as a core business to consolidate activities in forestry and solar, wind and biomass power (1997).
- HSE policy revised and strengthened associated governance processes (1997);

- Internal CO₂ emission reductions targets established and met (1997), new targets set (2000);
- Commitment to contribute to sustainable development (1998);
- Company-wide minimum environmental standards formulated and implemented (1998);
- Shell Tradeable Emission Permit System launched (2000);
- Social Performance Management Unit established (2001);
- Biodiversity standard and commitments formulated and implemented (2001);
- Program for all major installations to be certified to ISO 14001 complete (2002);
- Continuous venting of gas from all oil production operations eliminated (2003);
- Sustainable development learning program established (2004);
- New Group-wide Code of Conduct launched (2006).³⁸

Before the organizational restructuring, national level and local operating companies managed the refining of oil products and selling and distribution of oil, gas and coal products. Today virtually all of Shell's operations are much more directly managed from The Hague as "global businesses" have been created in all sectors. A centralized company is believed to be better equipped for internal communication and coordination (Skjærseth & Skodvin 2003), thus having a larger capacity to make use of information generated through monitoring. In this way, the restructuring appears to have contributed favorably to environmental management. In 2006 Shell ranked best in class for environmental management, policy and biodiversity as well as corporate governance, codes of conduct and transparency on the Dow Jones Sustainability Index.³⁹ The internal emission reductions targets as well as the commitment to doing ESAs even in countries where it is not compulsory,⁴⁰ like in China, shows how Shell is striving for standards *beyond regulatory compliance*, a change from before when even the companies supporting CSR did not agree that it meant doing anything more than what was required by law (Estrada et al. 1997). However, while for example the decision of signing up to the UN Global Compact was formally taken by the executive

³⁸ http://www.shell.com/home/PrintFramework?siteId=envirosoc-en&FC3=/home/envirosoc-en/html/iwgen/making_it_happen/our_progress/our_progress_04072007.html

³⁹ http://www.shell.com/home/PrintFramework?siteId=envirosoc-en&FC3=/home/envirosoc-en/html/iwgen/making_it_happen/our_progress/our_progress_04072007.html

⁴⁰ http://www.shellchemicals.com/magazine/1,1098,957-article_id=164,00.html

board, Shell employees that Boasson & Wettestad (2007) interviewed said the consequences of adherence were neither explored prior to adoption, nor were efforts executed in order to implement the Global Compact afterwards. Boasson & Wettestad claim companies like Shell embark on instrument adherence on the basis of their popularity, *not* their feasibility. It is nevertheless not all “window dressing” as in 2002 Shell reached its self-set GHG emission reductions goal years before it was due.⁴¹ The second target is to keep these 5% below 1990 levels by 2010. It seems unlikely that this would have been tried much less achieved had successful changes in environmental management not been made.

5.4.3 *Strategic and scenario planning*

Have environmental matters affected the company’s long term thinking? Since the energy industry by nature is a long-term affair, it needs to be able to forecast future developments. Shell’s scenario planning is a way of alerting the staff to the uncertainties in this area, and serves a role in environmental management and preparedness (Estrada et al. 1997). Things have changed in the past decade, and renewable energy sources are given more emphasis, it is Shell’s view, however, that “oil and gas will continue to supply a significant part of the world’s energy for the foreseeable future, but energy will increasingly come from alternative sources like wind, solar and biofuels”.⁴² The fact that Shell aims to develop at least one alternative energy source into a substantial business is a considerable change from 1995 when “there was only one way forward – back to the traditional core business of petroleum exploration, production, refining and marketing” (Estrada et al. 1997:177). Today’s scenario planning encompasses a much wider spectrum of uncertainties than the more traditional focus on oil price, political and financial trends and the post-Cold War world (Skjærseth & Skodvin 2003). Three scenarios published in 2005 are “alternative stories of how the world may develop” until 2025,⁴³ portraying where the principal challenges for the future lie. The focal question in all three is how the triple dilemma posed by trying to achieve efficiency, social justice and security – objectives that can sometimes require conflicting solutions – can be resolved in a globalized world. In the 2005 scenario “Open Doors”, environmental effects have been internalized in energy prices, with

⁴¹ http://www.shell.com/home/content/envirosoc-en/making_it_happen/our_progress/our_progress_04072007.html

⁴² http://www.shell.com/home/content/aboutshell-en/what_we_do/renewables_hydrogen/renewables_hydrogen_07112006.html

⁴³ http://www.shell.com/home/content/media-en/news_and_library/press_releases/2005/global_scenarios_launch_06062005.html

Kyoto-like mechanisms making carbon management an essential part of energy development and use. Climate change is not explicitly emphasized in either of the three, even though emission reductions are mentioned. There is thus a slight discrepancy between the company's acknowledgement of the climate change threat, and how this is incorporated into its plans. Climate change was more central in the 1998 scenario "The New Game" which featured a US-ratified Kyoto Protocol, and coal being driven out of the energy mix entirely (Skjærseth & Skodvin 2003). This was only two years before Shell divested its entire coal operation.

5.4.4 Research & development

Do environmental matters affect investment decisions in the R&D of traditional core and alternative energy activities? Shell's policy is to develop technology geared towards producing energy and petrochemicals sustainably and economically. In the face of demands for higher environmental standards, the latest technological solutions for exploring and production of oil and gas; processing and refining products and developing energy from new sources are applied. Shell says its "success is built on integrating technology, driving innovation and harnessing expertise".⁴⁴ Renewables is an embryonic part of Shell's operations, but wind energy developments have taken place in the US and in China. The "outlining [of] plans to explore the potential for wind energy developments in China"⁴⁵ may not seem like much, but from visiting Shell's offices in Beijing, I know their Renewables unit at least has a proper Wind Energy division. In 1998 Shell anticipated a future in which low-carbon and renewable energy sources cover as much as 50% of world demands by 2050 (Skjærseth & Skodvin 2003). It might strike the observant reader as odd that this figure was published only one year after the Renewables unit was established. Today the company seems to have abandoned this ambitious view of the future of renewable energy sources. Shell Solar is the world's largest photovoltaics business with a 13% market share (Shell 2002). In China, Shell is providing solar panel electricity in rural villages formerly without access to electric power. Renewable energies investments in other places involve hydrogen purification technology and plant waste ethanol for blending with gasoline to reduce GHG emissions.

⁴⁴ <http://www.shell.com/home/Framework?siteId=technology-en>

⁴⁵ http://www.shell.com/home/Framework?siteId=china-en&FC2=/china-en/html/iwgen/leftnavs/zzz_lhn2_3_6.html&FC3=/china-en/html/iwgen/about_shell/what_we_do/renewable_12282001_1947.html

Natural gas today supplies only 2% of China's energy needs, but the government is committed to increasing the use of gas to 8% by 2010.⁴⁶ Shell is involved in natural gas production and gas-to-liquids technology internationally and in China. The Group makes the case for use of natural gas by explaining the many advantages of gas over competing fossil energy sources: it is sulfur free, produces less GHG emissions and no dust and particulate emissions. In 1998 a Shell director concluded that since China cannot likely be energy self-sufficient, natural gas will not out-stage coal as China's main source of energy (Williams 1998). The solution seems to be to continue developing natural gas and to produce coal in a more environmentally friendly way through investments in coal-to-liquids (CTL) and coal gasification technologies.

5.4.5 Investments

Do environmental matters affect investment decisions in traditional core activities and diversification to alternative energy? Shell today views investment in diverse energy sources as critical for energy security as it will protect the world from interrupted energy supplies and in avoiding the over-dependence on any one region or energy source (Shell 2006). The Renewable energies unit is part of a strategy to safeguard the company by exploring several kinds of renewable energy sources rather than opting for one (Boasson & Wettestad 2007:15). Financial results and efficiency seem to be the main legitimating concepts within the field and thus environmental responsibility is relevant to the extent that it is related to financial gains. As seen above (in the section on R&D) Shell's focus on diversification is wider in range than it is large in quantity, and the Renewables unit is not represented by an executive director at the board level like the other core business units (Boasson & Wettestad 2007). For Renewables to become economically viable, R&D, investments and risk taking may be necessary. This is part of being a frontrunner and willingness to take risks for the greater good is necessary when working to maintain one's social legitimacy.

At the same time as the Renewables unit was established, all of Shell's coal production was divested, only to become part of business again, only in China, with investments in clean coal and CTL technology. According to my source at Shell China, the abundance of coal is the only reason Shell is present in China at all. This seems to be an overstatement since its non-coal related business in China is

⁴⁶ http://www.shell.com/home/content2/china-en/about_shell/what_we_do/gp_12282001_1800.html

substantial (see section 5.5.), but it is nevertheless an interesting notion. The topic of Shell China's coal investments will be discussed further later on.

5.4.6 *Government and public relations*

How does the company relate to and deal with the political agenda of environmental policy? As a TNC the Shell Group has to deal with significant regional differences in business culture, environmental standards and government structures. It now takes great care with how it is perceived by customers, governments, stakeholders and society. A good reputation may improve profits, just like a bad reputation has had negative economic consequences in the past. The Netherlands, one of Shell's two home countries, has been a frontrunner in general environmental as well as climate policy development while the UK, the second, raised its ambitions a little later (Skjærseth & Skodvin 2003). With thousands of Dutchmen and Brits employed in the Group, it is logical to assume the company will be influenced by the environmental sentiments in the governments and publics of both countries. Today Shell collaborates with governments, NGOs, local communities, industry partners and UN bodies (Shell 2002). In addition to publishing annual reports on HSE issues, the online "Tell Shell" system has been established as a way to communicate with the public (Shell 2002). These developments are perhaps an effort to counter the critique directed at the industry for using a lot of big words without showing actual results or listening to feedback from the public.

The Shell Group has avoided excessive display of green values in its public image, contrasting competitor BP's \$7 million green logo.⁴⁷ There have been some changes on this arena too, as it realized that the public wanted companies to *show them* what they were doing. Websites and printed material now flaunt goals, achievements and even self-criticism. It is nevertheless still emphasized that it is not a matter of philanthropy; it is *business*, consistent with the view that environmental sustainability makes good business sense. Whereas in 1995 Shell did not publish environmental reports as a group, it now publishes reports annually using external review committees to ensure transparent reporting (Shell 2006). Cooperating with governments is part of Shell's climate change mitigation strategy. Governments' role is, among other things, the formulation and implementation of policy, but it also needs to cooperate with industries to find viable and achievable solutions. The Group's view is

⁴⁷ <http://news.bbc.co.uk/1/hi/business/849475.stm>

that governments must produce frameworks to encourage investments in low and zero CO₂-emitting energy whilst promoting efficiency in both energy production and consumption.⁴⁸ Recently, a Shell executive was reported saying “governments need to enact mandatory limits on greenhouse gas emissions and not rely on voluntary measures to battle global warming”.⁴⁹ He called for governments to take the lead by replacing the worldwide patchwork of regulations with a uniform system to create a level playing field for companies to address climate change. Until recently, the kind of playing field called for by Shell included governmental guidelines and the freedom for companies to find their own ways of adhering to environmental regulations where they saw fit (Skjærseth & Skodvin 2003). Market-based instruments and measures were to help reduce carbon emissions. While for example Shell’s internal emissions trading system was a very positive effort, calling for governments to encourage any kind of *voluntary* action does not sound effective nor likely. Indeed, the above-mentioned executive was quoted saying “[v]oluntary is not fast enough” in the same article. Thus the recent call for mandatory caps could be a step in the right direction, even if it is still partially a question of a level playing field.

5.4.7 *The creative Shell?*

In 2007 it is obvious that a lot has been going on in the past decade. Shell’s environmental profile is still that of a pragmatic business-like approach with visions defined by society and goals set by governments. Calling Shell’s 1990s transformation a “holistic approach to changing the ways it does business” (2000:65), Mirvis explains that this was different from what you usually see in company crisis response. Crisis-driven changes most often involve “fire fighting”, meaning that the company will engage a few relevant work units which seldom have any longstanding results once the crisis is averted. Shell has done much more than just that, writes Mirvis (2000). Skeptics rightly question why a major energy company would go to lengths trying to achieve sustainable development through costly investments and to the point where they are kicked off projects for taking too long with costly impact assessments (interview Shell China). Countering this, Shell explains that “[c]ontributing to sustain-

⁴⁸ http://www.shell.com/home/content/envirosoc-en/environment/climate_change/our_approach_to_climate_change/our_approach_to_climate_change_000407.html

⁴⁹ <http://www.reuters.com/article/companyNewsAndPR/idUSN2538148320070925>

able development [is] not only the right thing to do, it [also] makes good business sense”.⁵⁰ This happens by:

- *Reducing operational and financial risk.* Delays, approval failures, disruption to existing operations by concerned communities are significant risks to business. Understanding what stakeholders perceive as responsible behavior, meeting these expectations and achieving recognition from financial institutions, investors and customers deliver financial benefits.
- *Reducing costs through eco-efficiency.* This is about producing more with less energy and materials by adopting cleaner technologies, reducing emissions, recycling, reusing, minimizing waste and turning waste into saleable products. This improves operational efficiency, reduce costs, avoid currents and future cost of emissions and create new income.
- *Influencing options and evolving portfolios.* By anticipating new markets driven by society’s desires for a cleaner, safer, more sustainable world, and evolving business portfolios and supply chain relationships to match, we can gain competitiveness and enhance our “license to operate and grow”.
- *Influencing product and service innovation.* Being aware of changes to customer life styles and values enables us to provide more services to customers that reflect and meet their demand.
- *Attracting more loyal customers and enhancing the brand.* Providing products and services built on sustainability thinking create customer loyalty and market share.
- *Attracting and motivating top talent.* Our commitment to sustainable development is an important factor in some people’s decision to join and stay and that alignment between personal values of staff and corporate values is a powerful motivator.
- *Enhancing reputation.* By being seen and being credible as a good corporate citizen whose performance matches its words, we become the organization of first choice for customers, staff, investors, suppliers, partners and the communities in which we operate.

⁵⁰ http://www.shell.com/home/PrintFramework?siteId=envandsoc-en&FC3=/home/envandsoc-en/html/iwgen/sust_dev_and_business_strategy/business_case_sd/business_case_sust_dev_29032006.html

Thus Shell has worked to enhance its competitiveness through innovation offsets, following the hypothesis of Porter and van der Linde (1995), by reducing costs through eco-efficiency and enhancing and influencing product innovation. Following Porter (1985), Shell has also differentiated by achieving an image as an above-average performer in environmental issues. “Companies primarily contribute through their business operations and not by philanthropy,” said the Yves Merer, President of Shell China Exploration and Production Company (Shell 2003:1), adding that:

“[i]n terms of what we are responsible for in Shell, it is the 12\$ billion we invest with partners in business every year that really matters, rather than the 140\$ million in donations – although these have an important catalytic role.”

In this way, it has redefined the market to its own advantage by making the public expect and, in the future perhaps accept, nothing less than beyond regulatory compliance from other companies in that same industry.

Today goals are also set by the company itself and the reader of company material senses a humbler approach to dealing with society and public environmental consciousness. Contrary to the earlier arrogant corporate culture, Shell now “believe[s] long-term competitive success depends on being trusted to meet society’s expectations” (Howard 2006:182), thus acknowledging the need for social legitimacy. Being frank about its intentions in this pragmatic way may be *intentional*. The public does not seem ready to buy into the notion that a capitalist organization would do anything simply out of the nicety of its heart, and may never be ready, if it knows anything about the nature of capitalism. After all, it is a common belief that a company’s principal purpose is to maximize returns to its shareholders, while obeying the laws of the countries within which it works (Friedman 1970). More extreme, there is the view that following for instance principles of CSR constitutes breaking the “rule of corporate law”, mentioned in section 5.3. Such views provide the public with ample justification for its mistrust in the “good intentions” of private companies. In my opinion, when it comes to the environment, such an argument is short-sighted. The survival of a company depends on its social legitimacy and, in addition to financial profit of course, on the ultimate survival of the planet. However, the point is that Shell may be sticking to its pragmatic and business-like approach because it is much easier for the public to believe in that than believe that it is philanthropy.

Without doing a deeper study of all aspects of the Group’s operations, it is impossible to “prove” whether or not its environmental degradation and climate

change mitigation efforts are sincere. On the other hand, it is clearly observable that Shell has undergone changes which seem to be in its own immediate disadvantage economically in the short run, such as leaving the Global Climate Coalition and setting emission reduction targets for its own operations. Calling it a disadvantage, however, is problematic in this case because it is possible to argue that Shell *is* in fact working in its own favor since renewed and extended social legitimacy will land Shell new customers and business deals.

Based on the information presented in this chapter, it is my view that Shell has shown progress along the axis of environmental responsiveness and that it now holds the characteristics of a *creative company*, consistent with Estrada et al. (1997), because:

- It is the company's view that environmental issues represent a fundamental change in society with opportunities as well as challenges, as opposed to denial or simple acknowledgment of risk.
- It adapts to the new developments by management of technology as opposed to sticking to its core business or managing resources.
- Its strategy is to be hands-on ("Let's do something now!") as opposed to cautious ("Let's wait and see") or simply prepared for what could potentially happen.
- Its internal responses focus on actual innovation and diversification, not PR, "fire fighting" or an introduction of basic environmental management procedures.
- When dealing with government demands, it responds with breakthrough solutions and the formation of public-private partnerships, not divesture or reluctant compliance.
- Its message to society is one of guidance and provision of choices, going beyond alignment ("We too care for the environment") and intimidation ("Wealth creation is at stake!").
- It has redefined the market in which it operates to its own advantage by differentiating and raising the public's expectation to the industry. It has let go of the demand for a level playing field with unified standards and comparative advantage through minimum standards. In this way it has become an "image frontrunner".

What held the Shell Group back in the 1995 was partially its position on climate change. Clearly a step in a more proactive direction has been taken as Shell now acknowledges the imminence of the climate change threat and is actively working for its mitigation. The establishment of the Renewable energies unit also contributes to this.

5.5 Shell China

Shell's business relationship with China goes back as far as to the 1890s when the Shell Transport & Trading Company was first shipping kerosene to China and the company with which it was eventually going to merge, Royal Dutch Petroleum Company, had operations in China (Shell 2006b). The two companies merged in 1907, becoming the Royal Dutch/Shell Group. At the time of World War II, Shell had more than 50 subsidiaries in mainland China, running 1000 sales outlets in 20 provinces, but during the war the facilities were taken over by the Japanese. After the war, however, everything was quickly rebuilt and Shell remained in mainland China as the only European or American energy company trading with the People's Republic of China until 1966. According to Frynas (2000) Shell has always had very close relationships with governments and because of its ability to nurture those relationships it has avoided some of the nationalizations that have happened to other companies. In 1970-71 Shell re-entered China and representative office was re-established in Beijing in 1980. Active trade in chemicals resumed and Shell formed oil exploration ventures with Exxon and Phillips. In 1985 and 1987 two Shell JVs were opened in the Shenzhen Special Economic Zone. Since then, Shell China has continued to develop and expand the number and scale of its operations. At the end of 2005 the company's investment in mainland China was about USD 3.5 billion, making it "one of the largest commitments of any international energy company".⁵¹ Today, Shell China has 21 wholly-foreign-owned or JV companies employing 1,600 people, most of them Chinese. It has formed partnerships with the national energy companies PetroChina, Sinopec and the China National Offshore Oil Corporation. All of Shell's core businesses are present in China and current key business developments are (Shell 2006):

- The Nanhai petrochemicals project in Guangdong Province,

⁵¹ http://www.shell.com/home/Framework?siteId=china-en&FC2=/chinaen/html/iwgen/about_shell/what_we_do/zzz_lhn.html&FC3=/china-en/html/iwgen/about_shell/what_we_do/bussiness_01302002_1438.html

- Oil products retail joint venture in Jiangsu province involving about 500 service stations,
- A growing lubricants and bitumen business,
- Oil exploration and production offshore in the South China Sea,
- Natural gas development in Hangzhou,
- Coal gasification developments,
- Coal-to-liquids and gas-to-liquids developments,
- Hydrogen car fuel project in Shanghai,
- Solar electrification projects in rural Western China,
- Consultancy services on energy efficiency and technological solutions.

Shell China's involvement in of coal related operations were portrayed in Chapter 4. Its justification for re-investing in coal is that it provides more than 70% of China's energy and that it will in all likelihood remain the dominant energy source for years to come, making it a matter of *how it is used* and not *if it is used* or *how to diminish its use*. Thus, Shell's strategy is to use coal, but to do so more efficiently and cleanly. Shell has therefore invested in the R&D of coal gasification and CTL technology.⁵² Currently, Shell China is cooperating with the United Nations Educational, Scientific and Cultural Organization on a coal gasification technology project which is intended to speed up the application of the technology and promote social development through scientific interaction.⁵³ Coal gasification technology allows for a cleaner use of coal, with an environmental footprint similar to natural gas which is cleaner than both oil and coal. The technology is so far being licensed to 12 Chinese companies. Both the CTL and gas-to-liquids technologies are involved in trial projects in Shanghai and according to Shell they produce little waste, are cost-effective and deliver "superior environmental performances with [low] local emissions".⁵⁴

Next, there is the matter of renewable energy sources. Even though they are always mentioned as a focal point for Shell (e.g. Shell 2002, Shell 2006), one does not have to dig deep to find that Shell China's renewable energy section has got little on the other core businesses, and there is also evidence of this in the list above. Examples

⁵² http://www.shell.com/home/Framework?siteId=china-en&FC2=/china-en/html/iwgen/leftnavs/zzz_lhn2_3_3.html&FC3=/china-en/html/iwgen/about_shell/what_we_do/gp_12282001_1800.html

⁵³ <http://www.unescobeijing.org/projects/view.do?channelId=004002004001005001>

⁵⁴ http://www.shell.com/home/Framework?siteId=china-en&FC2=/china-en/html/iwgen/leftnavs/zzz_lhn2_3_3.html&FC3=/china-en/html/iwgen/about_shell/what_we_do/gp_12282001_1800.html

of Shell's involvement in renewables in China include photovoltaic panels used in the provinces of Qinghai, Xinjiang and Yunnan; electricity provision for villages as part of a rural development program under the NDRC;⁵⁵ and a public-private partnership on a pilot program building China's first hydrogen filling station. Regarding wind power, recent developments were mentioned in section 5.4.4.

In its business overview for China, Shell promises to offer the latest technological and environmental solutions in all its core businesses, thus contributing to sustainable development. Its business objectives in China are cited as:

“[T]o help address the country's energy priorities including energy supply/security, environmental protection and energy efficiency, working in partnership with Chinese companies and customers to mutual benefit both in China and overseas”.⁵⁶

As mentioned above, it is Shell's official view that its greatest contribution to society is in supplying energy in a good way, but it is nevertheless involved in certain kinds of philanthropic ventures. In China, its “Environmental Awareness Initiatives”⁵⁷ include:

- A scheme encouraging schoolchildren to apply their *environmental learning* and develop community projects designed to protect the environment;
- Support of *tree planting projects* around China since 1998;
- Sponsorship of a *children's environmental guide* published by Beijing Global Village;
- Sponsorship of the *China Exploration Research Society* since 1993 on important conservation projects in remote areas of China;
- Sponsorship of the NGO Global Village to take a series of *TV program about Green Olympics* in Sydney;
- Sponsorship of the protection of *wild camels* in Xinjiang province;
- Contribution to funds to the *Task Force of Environment and Natural Resources Pricing and Taxation* of the CCICED.

Shell China has to adhere to the Business Principles and the HSE policy of the Shell Group (Shell 2002), but it also has to follow Chinese law.

⁵⁵ http://www.shell.com/home/Framework?siteId=china-en&FC2=/china-en/html/iwgen/leftnavs/zzz_lhn2_3_6.html&FC3=/china-en/html/iwgen/about_shell/what_we_do/renewable_12282001_1947.html

⁵⁶ http://www.shell.com/home/Framework?siteId=china-en&FC2=/china-en/html/iwgen/about_shell/what_we_do/zzz_lhn.html&FC3=/china-en/html/iwgen/about_shell/what_we_do/bussiness_01302002_1438.html

⁵⁷ http://www.shell.com/home/content/china-en/society_environment/dir_socialinvestment_1030.html

5.6 Summary

This chapter has outlined the operations of the Shell Group and its subsidiary Shell China, the “transformation” the Group went through in the 1990s as well as the motivation and philosophy behind its new look and attitude. Based on a comparison between Estrada et al.’s analysis from 1995 and my own recently collected data in combination with literature on the subject, I have repositioned Shell in the creative category of environmental responses. This is because, to name a few reasons, it has shown progress in how it related to environmental matters, the climate change threat in particular; it has diversified its energy portfolio to include renewable energy sources; it is focusing on innovation and technology which, while being good for business in terms of product and process offsets, is also good for the environment; it is party to a range of CSR instruments and striving for compliance beyond regulatory requirements. I have also given a description of Shell China and our next step will now be to see what the Group’s new environmental profile means for the daughter company and how it does its business in the complex and increasingly important People’s Republic of China.

6 Barriers to More Effective Implementation

In this chapter I will, in light of the three expected barriers outlined in section 4.5., discuss the potential for a successful implementation of Shell's HSE policy. In the case of Shell, a more environmentally friendly energy production can, as we have seen, take many forms. The HSE policy implementation is but one example which I have chosen because it is at the heart of Shell's environmental efforts and because there is ample information available on it. Health and safety are of course also important matters, but it is the 'E' in HSE which is the focal point here.

I have identified the expected three barriers inductively by analyzing my data without looking specifically to Najam's (1995) terminology for "pegs" to "hang" them on. In an effort to avoid biasing my analysis, I have not looked for barriers to implementation that would fit squarely into Najam's categories. In stead I have looked for the terms my informants used when addressing the phenomena during interviews as well as what I deemed most important in this very case relevant to the information provided in Chapter 4. This has also been useful because the barriers all relate to more than one of the five Cs. Najam's terminology thus serves as a check on my findings against the works of other authors.

6.1 Implementation of existing legislation

"Government may have the most logical policy imaginable, the policy may pass cost/benefit analyses with honors, and it may have a bureaucratic structure that would do honor to Max Weber, but if those responsible for carrying it out are unwilling or unable to do so, little will happen" (Warwick, in Najam 1995:41)

Warwick's quote may originally have been about governments, but implementation is just as relevant to the study of private companies. Implementation is a challenge for governments and private companies world-wide and the three barriers introduced in Chapter 4 hamper the implementation of existing legislation which could facilitate a more environmentally friendly energy production. As mentioned in Chapter 2, earlier by experts and probably still by the layman, implementation was viewed as something that would largely happen by itself, once a policy had been formulated, and responsibilities and authority delegated. Regretfully, it does not seem to be as simple as this and identifying insufficient implementation as the outcome of the barriers is not the end of anything, because "implementation is more akin to a Russian doll of implementation-within-implementation" (Berman in Najam 1995:2) and the problems

could be just beginning. Najam (1995:43) is writing about the implementation of international environmental agreements, but his logic still applies to the case of Shell:

“[A] lack of commitment at the international (...) level to fulfill promised resource transfers, or at the national (...) level to translate the international policy into priority domestic legislation, or at the agency-level to formulate well-endowed projects, or at the street-level to translate mandated programs into action could each equally lead to ultimately inefficient implementation.”

“The life and soul of a law lie in its implementation” writes Wang (2007:31), thus Shell’s executives in Europe can decide all they want how they want things to be done – and probably influence some of their employees and maybe even impress the public – but ultimately, the responsibility for implementation lies on the whole organization. This is also true in the case of Shell China’s HSE policy implementation. The 5C protocol is a set of inter-linked, generally applicable, explanatory variables set in system to be used in studies of implementation (Najam 1995). I will now identify what the five Cs represent in the case the HSE policy, discussing how the above-mentioned barriers influence it.

6.1.1 Content

Parts of the content of the HSE policy were mentioned in Chapter 5, but I will also outline important elements here. The HSE policy is a regulatory policy, meaning that it specifies “rules of conduct with sanctions for failure to comply” (Najam 1995:35). It has a list of goals, which I find rather vague, something which on the one hand makes them ambitious, but on the other hard to operationalize and therefore, I expect, hard to implement:

- Pursuing the goal of no harm to people;
- Protecting the environment;
- Using material and energy efficiently;
- Developing energy resources, products and services consistent with the HSE aims;
- Publicly report on its performance;
- Playing a leading role in promoting best practice in its industries;
- Managing HSE matters as any other critical business activity;
- Promoting a culture in which all Shell employees share this commitment.

The first two points are vague because what someone does to protect the environment will depend on what one thinks *needs* protection and in calling for a *pursuit* of no harm the company in a way lets itself off the hook as long as it tries, without specifying the definition of the goal's success. The third and fourth points, however, show commitment to efficiency and diversification, even if Shell China's diversification is so far happening on a small scale. Several of the points are in accordance with Shell's official view that being environmentally friendly is good for business and involve energy and material efficiency which by bringing potential product and process offsets. Managing HSE like any other part of the business shows an institutionalization of environmental concerns. The new corporate culture was a process initiated during the transformation which hopefully is well under way by now. The question of how Shell is going to make this happen, however, still remains. The content part of the 5C Protocol should not only include goals, but also methods. The methods part of Shell's HSE policy states that all companies must:

- Have a systematic approach to HSE management designed to ensure compliance with the law and to achieve continuous performance improvement;
- Set targets for improvement and measure, appraise and report performance;
- Require contractors to manage HSE in line with this policy;
- Require JVs under its operational control to apply this policy and use its influence to promote it in its other ventures;
- Include HSE performance in the appraisal of all staff and reward accordingly.⁵⁸

This list is also not particularly specific, and especially point three on subcontractor relations sounds like a true case of the never-ending policy-within-policy predicament, because simply making subcontractors do anything is a question of a lot more than policy content, indeed it is a matter of all the five Cs. Regarding the vagueness of the lists I recognize, however, that, even though it probably exists, little material with explicit operational methods is likely to be published by neither Shell China nor the Shell Group. From my interview with Shell China, I nevertheless know that all projects have to go through a "Hazards and Effect Management Process". This involves identifying:

- Potential hazards in the project (e.g. acid);

⁵⁸ http://www.shell.com/home/content/china-en/about_shell/our_performance/environment/hse1_12282001_1213.html

- What consequences these hazards might have;
- How to manage this consequences (e.g. an acid leakage);
- How to reduce or avoid these consequences.

This process is relevant to the actual plant-level production, and not so much to more over-arching goals such as being a leader in promoting best business practice.

6.1.2 Context

The institutional context is the corridors through which policy must travel, and by whose barriers it is limited, in the process of implementation (Najam 1995). The context of the HSE policy is thus both China, the Shell Group and Shell China.

In the Chinese context the three barriers are influential in several ways. First, one example of how the role of the state has inhibited HSE implementation is the case of the West-East Gas Pipeline which Shell China was going to build in a JV with PetroChina and other foreign companies. The 4000 km pipeline transports “clean fuel from Xinjiang to the energy-hungry Yangtze River Delta”.⁵⁹ In Shell’s view “[t]he project would bring enormous environmental benefits to China by harnessing (...) cleaner fuel and replacing the growth in coal in many eastern cities”, but “the benefits should not be at the expense of the environment or people’s quality of life along the pipeline route [thus presenting the project with] a number of environmental, cultural heritage and social challenges before the gas [could] be delivered” (Shell 2003:3). Shell cooperated with the United Nations Development Programme (UNDP) in making an ESIA which delayed the project for some time (Zhou 2005).⁶⁰ In 2006, Shell was let go from the project, according to my informant at Shell China because the government and PetroChina felt they could not let the demands based on the ESIA results delay the project further. Having a strong state capable of directing industry investments towards areas in which it is needed, preventing pollution haven strategies and the like, is both important and necessary, in order to put pressure on private companies. A paradox thus presents itself when the private company seems to be the “environmental good guy”, and the interventionist state not. Business dependency on the Chinese state and national oil companies could in this way be a barrier to Shell’s involvement in the production of more environmentally friendly energy by refusing

⁵⁹ <http://www.china.org.cn/english/features/Gas-Pipeline/37313.htm>

⁶⁰ I have not been able to establish how long the project was delayed for

the full implementation of the HSE policy. My informant at Shell China said he was sure the government is open to Shell's ideas and requirements and will listen to its advice, just not necessarily follow. Shell China on the other hand, being under continuous scrutiny from pressure groups, cannot afford not to implement it and may thus become reluctant to future investments in other projects which would contribute to a more environmentally friendly energy production. It should be noted though that others claim Shell China *pulled out* of the project because it benefited mostly PetroChina and that Shell China had been denied access to the Chinese market for its own imported gas.⁶¹ I have not found much information to support this notion. The explanation could also be a combination of the two.

Second, short-term economic perspectives in the context will also influence HSE implementation. While economic growth is an easily quantifiable and observable development goal, environmental progress is not and economy thus takes precedence over environmental issues. In industry, environmental short-cuts can save money, even if it means refusing the implementation and enforcement of laws and regulations meant to improve the situation in the long-run. The chances of getting caught violating environmental laws and regulations are so small that people in the Chinese industries are willing to run the risk and they also bring this practice with them to foreign companies (interview Shell China; oil and energy industry adviser). Someone facing what appears to be a dilemma of promoting either economic *or* environmental goals can solve the problem for themselves by emphasizing short-term gains and letting economy take precedence. The dilemma may be consistent with traditional views on the issue of economy versus environment, but is, as we have seen, not necessarily a reality today as modern companies also have the opportunity to opt for innovation to spur economic offsets and differentiation from competitors to create favorable images. "We see a clear business case for social and environmental responsibility", claims Shell executive Merer (Shell 2003:4), explaining that this is because "it increases effectiveness (...), promotes innovation (...) [and] is fundamental for our reputation". According to Porter and van der Linde (1995), companies will become aware of innovation offsets in a diffusion process. It is likely to start where environmental regulations and their implementation are the strictest and most effective and, as other countries follow, spread to companies operating there. Shell's R&D policy is to develop technology geared towards producing energy and petrochemicals sustain-

⁶¹ http://www.businessweek.com/magazine/content/04_46/b3908044.htm

ably and economically. This emphasis on R&D to produce innovations in both renewables and the fossil fuels, including coal, gives Shell China the possibility to counter the dilemma by showing off its innovation offsets to actors both within and outside the company, thus differentiating on image and products. If the notion that being environmentally friendly can benefit the economy becomes known in China, it can help counter short-term perspectives on economic gains detrimental to the environment and facilitate the implementation of environmental policies. A successful HSE implementation can thus produce significant process offsets. In following the Hazards and Effect Management Process, the plant-level actors save time and money on erring on the safe side because they avoid environmental damage such as spills which would have had to be cleaned up later; damage to people which could cause sick leaves and liability; damage to machinery which could cause production downtime and loss of productivity; extra paper work and investigations related to finding out what went wrong and who is to blame. Two of my Chinese informants, the Shell China representative and the environmental consultant, had no doubt that Shell is in this way creating precedence and influencing Chinese companies through their JVs.

Third, China is home to a great deal of the world's pirated goods industries, which could influence Shell China's development of energy resources, products and services consistent with the aims of the HSE policy. Counterfeiting makes companies reluctant to long-term investments; opt not to use their newest technology; or not establish R&D facilities (interview energy and environment adviser). This has consequences for the development of new technology as for example wind and solar power, LNG and clean coal need to be "cutting edge" in order to compete with the traditional fuels (interview environmental consultant). Counterfeiting is thus a barrier to both the HSE policy, diversification and the cleaner production of fossil fuels. On a more positive note it is possible piracy could lead to the diffusion of "green" technology into Chinese industry.

The Shell Group is also the context of the implementation of the HSE policy. My access to information about the inner workings of both the Shell Group and its Chinese branch is limited, however, and I have not been able to take into consideration in this discussion much of its decision-making and implementation processes. From interviewing with Shell China I nevertheless know that the Group at the top level designs and decides on the universal, global policies such as the HSE. Since

there will be location-specific differences, however, there is also something called “The Golden Rule” stating that all Shell companies and employees must:

- Follow local rules and laws;
- Intervene in unsafe situations;
- Respect people (interview Shell China).

Vagueness thus seems to be a weakness in the whole HSE policy’s, if a separate and indeed even vaguer rule is needed for when special local conditions apply, which is not unlikely in the case of Shell China. There is no mention of environmental protection in the Golden Rule. Without the existence in the environmental management system of elements such as the Hazards and Effect Management Process, this would be problematic if it meant that, under local circumstances in China, where for example conflicts of interest inhibit Shell employees from using energy and material efficiently or report publicly on its performance; that everything would be good and well as long as they followed local rules and law, intervened in unsafe situations and respected people. Here, the Hazards and Effect Management Process serves as an example of how processes in environmental management compliment each other.

6.1.3 Commitment

In Shell China, insufficient commitment to environmental policies in general and to the HSE policy in particular appears to be a problem of low environmental awareness among its Chinese employees, which make up the majority of the staff, leading them to let other concerns take precedence. Indeed my informant at Shell China emphasized the difference between Chinese and foreign managers on environmental issues. On the managerial level, the Chinese employees are highly educated, bilingual and many have international experience, which sets them apart from the Chinese public as a whole. They are nevertheless less environmentally aware than their European counterparts as Europeans have a longer history of environmentalism as well as more resources to spend on issues not related to wealth creation (interview Shell China; director). So far, environmentalism in China exists mainly in the economic and cultural elite, as they are precisely the ones with the time and money to care, while at the same time being the most exposed to influence from the developed countries (interview Shell China; director). Shell China’s managers are unlikely to be part of any such elite and “lower down” in the system, even less so. Short-term economic perspectives based on financial and social insecurity; lower levels of education and

training as well as the influence of what appears to people thinking in terms of traditional economic theory to be an “intense contradiction between economic development and environmental protection” (Wang 2007:19), influence the actions of Shell China’s Chinese employees (interview consultant; Shell China). Even if the local-level managers are educated and exposed to (what Europeans at least like to think of as) “Western” environmental values, the physical and mental distance from the HQ combined with the pressure to show quantifiable results with consequent conflicts of interest, will often lead them to let economy and energy security take precedence over environmental protection even when strict regulations exist (interview environmental adviser). In, addition, even if many Chinese are concerned about environmental degradation, they feel that it is the responsibility of the government, state, NGOs and academia and not private companies (interview environmental consultant).

My informant at Shell China nevertheless emphasized throughout the interview that when doing a deal with a business partner, the deal is dispensable, but the HSE standards are not. He explained that this can be a hard beginning in meeting with powerful companies like PetroChina, as exemplified by the pipeline incident. Upon confronted with this notion other informants did not think it very likely that Shell China would dispose of a business investment over HSE standards disagreements (interview journalist; director). In my opinion, even if Shell China is unable to implement its environmental policies fully in every instance, it does not necessarily justify accusing it of “greenwash”, because it is a matter of feasibility; what it is reasonable to expect that Shell China is able to achieve given the difficult situation.

According to Najam (1995), the lack of commitment to the goals and methods of those entrusted with carrying out the implementation at various levels can be made up for by implementation capacity, that is, the resources allocated to the implementation and *vice versa*. As will be discussed below, commitment is nevertheless not something which can necessarily be bought, even though the amounts of resources allocated to creating it though training and awareness-raising, contributes to its formation.

6.1.4 Capacity

The administrative *capacity* of the implementers determines their ability to carry out the desired changes a policy entails. Whereas commitment shows *will* to action, capacity shows *ability*. Policy implementation may be hindered by overworked or poorly trained staff; insufficient information and financial resources; time constraints and the

like (Najam 1995). Capacity is also called “resources” and refers to the allocated time, funding, size of staff, training, tools and technology. In an industry where companies’ social legitimacy and role in society is largely questioned not only because of their negative social and environmental impacts, but also because of their “obscene profits” (Estrada et al. 1997:53), the Shell Group is less likely to get away with insufficient funding of their own policy implementation processes. This issue may be different regarding Shell China, however, since social legitimacy may not be based as much on environmental and social issues in China as in Europe, a notion which will be dealt with in section 7.4.

I regret not being successful in finding specific information on capacity and the funding of environmental policy implementation in Shell China. This could have been analytically problematic given its important role in the 5C Protocol but since implementation capacity to a large extent is a question of financial resources, Shell China, among the TNCs with biggest and most successful investments in the country, has no financial excuse for underfunding its policy implementation processes. Moreover, after the Shell Group’s 1990s restructuring, each operating company reports directly to a global division which now enjoys more authority.⁶² This is favorable for the funding of policy implementation because it means budget posts are not decided on by the operating company alone and that Shell China’s budgets to a larger extent than earlier have to be consistent with those of the Group.

Capacity, however, can be tricky in spite of financial resources being available, because the real requirements of an implementation process can only become fully known once it has begun, and will often change as it proceeds (Najam 1995). A system with some location-specific flexibility is needed to let the content, including methods, be changed to respond to new situations. There is room for this in the HSE policy, as long as the Golden Rule is not broken, something which may have implications for implementation capacity. Flexibility can facilitate its success by giving the implementers more room to maneuver in a context they know better than the policy-formulators do. In this way they have the possibility to act creatively in practice, in situations where “thinking outside the box” may help the policy process. Problems related to HSE implementation happen in the “everyday operations” of Shell China as local employees and subcontractors are reluctant to commit to it (interview Shell China). In such situations, the managers and other implementers’ proximity to the task

⁶² <http://www.rh.edu/~stodder/BE/Shell1.htm>

and the local conditions means that their priorities are shaped not only by their agencies and own backgrounds, but also by the realities and concerns of their clients, the actors whose behavior is targeted by the implementation (Najam 1995). Their level of discretionary power, that is, their ability to make decisions on their own, “grants them the ability to not only influence the implementation of the policy, but to *de facto* ‘define’ policy in action” (p. 43). Whether or not Shell China’s implementers use any flexibility they find in the HSE policy’s to improve it or to get away with doing a mediocre job, will be a product of their commitment to the task since they are likely influenced by barriers in the Chinese context, such as short-term economic perspectives and conflicting interests. After all, “[t]he true test of commitment is not whether implementers execute a policy when their superiors force them to, but whether they carry out a policy when they have the option of not doing so” (Warwick in Najam 1995:43).

6.1.5 *Clients and coalitions*

Policy implementation is also a factor of the support or opposition of *clients and coalitions* whose interests are enhanced or threatened by a policy, and the strategies they employ in strengthening or deflecting it (Rosendal 1999). The clients can speed up, slow down or redirect the implementation process by showing different degrees of cooperation and refusal. The clients of Shell China’s HSE policy are mainly its own employees, JV partners and subcontractors. My informant at Shell China explained that there are arguments over the HSE standards all the time, in the “everyday operations” that Shell has around China. He gives the example of safety equipment which is of importance to the workers personally and to the company indirectly, explaining how it represents an extra cost to subcontractors making them protest it or simply not comply. This is contradictory to his notion that Shell China always puts HSE first, because subcontractors are included in the policy. Indeed other informants such as the journalist reacted negatively to this notion. The problem is that only a company whose license to operate is based on its social and environmental performance needs to concern itself with such issues. Subcontractors operating in an economic reality where continued growth and low product prices are the only rationale for differentiation and competitive advantage and where environmental pressure groups are largely nonexistent, sadly, do not. This shows that the notion of a law being ineffective if it lacks local legitimacy (van Rooij 2006) is applicable to company regulations as well. To always put the HSE policy above its gains may very well be

Shell's official policy and even its intention, but that does not mean it works that way in practice. A business environment is hardly a vacuum.

Due to the limitations on the activities of Chinese civil society, the *coalitions* that are relevant for Shell China are so far largely interest groups, opinion leaders and other actors *outside* China, such as NGOs internationally and in Europe. As long as such groups continue their scrutiny of the energy industry, they play a significant role in awareness-raising and in pushing for policy formulation on the HQ and managerial levels. Whether or not they influence HSE implementation on the local levels in China is a tougher question, and national and local groups and movements are likely to have a better chance at making a difference there, as long as the policy enjoys local legitimacy. The plan to give grassroots movements more room to maneuver could help improve this situation, which is something the Chinese state should take advantage of in their promotion of environmental protection. So far, the limitations on civil society activism are hampering this. Also, Shell's cooperation with both foreign and Chinese organizations exposes its staff to environmental ideas and demands, which could influence their sense of commitment to the cause. Pressure from foreign groups could still facilitate implementation by forcing through the continued provision of resources contributing to implementation capacity, but the mental and physical distance from environmentalists in Europe which influence company policy, to implementers on the Chinese plant-level is a gap not easily bridged. Clients and coalitions need to understand and agree upon what the HSE and other related policies are good for; otherwise short-term economic perspectives and conflicting interest will impede their commitment. Shell China needs to use real sanctions on subcontractors and other actors defying compliance. For Shell China to be able to implement its HSE policy, training, strict monitoring and controls are needed. My Shell China informant emphasized that from the beginning of any project, material on HSE issues is distributed to everyone involved, enough to "resemble a book in the end".

6.1.6 Prospects for HSE implementation in China

In this section I will briefly comment on the current status of the five Cs in relation the HSE policy and next discuss the most important factors which may contribute to its successful implementation. Commitment, capacity and coalitions appear to be the 5C Protocol's most central variables in this case, even though context, clients and content also all have parts to play. Context, however, has been discussed thoroughly in relation to the barriers and, obviously, the context of China, and need no repetition

at this point. The role of the clients is here closely related to commitment by implementers and will be dealt with as part of that. On policy content, suffice it to say that the vagueness of a few of the HSE goals can contribute to implementation in that what constitutes success is open to interpretation. How it appears to the public will be colored by for example Shell's annual environmental reports and "alternative" reports such as "Failing the Challenge? The Other Shell Report 2002" published by Friends of the Earth (2002). In terms of actual goal achievement instead of rhetoric and image, however, commitment, capacity and coalitions stand as out most influential.

First, capacity can contribute to the formation of a sense of commitment in the clients through funding targeted at awareness-raising and training. Even though I do not have specific information on this issue in Shell China, I have, as noted above, little reason to think that it lacks such capacity. In my opinion, however, the relationship between commitment and capacity may not be as straightforward as Najam's (1995) notion that the presence of one can make up for insufficiencies in the other. The Chinese, both Shell China's employees and other actors involved, are increasingly, albeit slowly, exposed to environmentalist views and demands, but it will probably take long for example subcontractors commit to environmental goals. Herein lies a commitment challenge which can be fought with capacity allocated for training; environmental awareness-raising; monitoring; sanctions and rewards. Commitment, however, is a *mental* process which does not necessarily come automatically with increased funding. For the allocated capacity to be able to create commitment, the focus must be on the *quality* of the capacity rather than the *quantity*. My Shell China informant explained how the company treats HSE matters as a "competence ladder". In the learning process, the "student" goes through stages of HSE awareness, knowledge, skills, mastery and "develop new". This shows that in Shell China, training in HSE matters are a question of *education* and not mere provision of information, something which will facilitate environmental policy implementation in the long run.

Second, policies which are universal within a complex system such as a TNC are always going to be difficult to operationalize and adapt in the many different contexts they are meant for. When a policy is formulated on the international level a number of more specific policies will have to be made on the national levels, and then again on the local levels, in order to adapt the goals and methods to the contexts. A paradox presents itself because policies more context-specific and possible to operationalize than the Golden Rule are needed for HSE implementation. On the other hand,

flexibility in implementation capacity can give implementers the opportunity to adapt to different situations and a chance to show their commitment. Targets for performance improvement, measure, appraisal and reporting are part of the policy, meaning that and rewards exist to give implementers incentives to commit.

Third, the pressure on the Shell Group and thus Shell China from coalitions in Europe is not likely to disappear. In fact, in the future such pressure may grow stronger if the weakened limitations on grassroots movement activism lead to an emergence of a Chinese civil society also capable of putting pressure on companies.⁶³ Since environmental awareness seems to be characteristic of the upper echelons of society, higher standards of living will likely raise general environmental awareness (but also, of course, let more people afford a car). Developments in the Chinese society which may help counter the three barriers are forces impeding Shell China's HSE implementation are thus dependant on continued economic expansion. Unsustainable as it is, the Chinese economy may continue its growth for a while, but not forever. They are, however, not likely to willingly let go of this opportunity to catapult themselves into high standard living. Sustained economic expansion with thus be a influencing the environment both positively and negatively, through resource consumption and pollution on the one hand, but higher environmental awareness on the other, which may facilitate the implementation of environmental policies such as the HSE. Continued industrialization may also lead to product and process offsets such as energy efficiency.

Forth, a civil society emergence represents a slight weakening of the state's influence and guidance of the public opinion. This may influence positively foreign companies susceptible to civil society pressure because their licenses to operate depend on a responsible image. Whether or not an emerging Chinese civil society will influence Chinese economic actors is a tougher question. I have seen few indicators in my interviews and in literature to suggest that such economic actors are susceptible to civil society pressure for environmental responsibility as of yet. One exception is the Chinese environmental consultant's notion that Sinopec and PetroChina have been "greening" not only because they need an alternative resource base for the future, but also, due to pressure from the European Union. They need a good image in order to do business with European companies, she said. Moreover, Mol (2006:43) claims

⁶³ <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/CHINAEXTN/0,,contentMDK:20600359~menuPK:1460599~pagePK:141137~piPK:141127~theSitePK:318950,00.html>

PetroChina is “acutely aware of the need to acquire internationally-recognized environmental management knowledge, and to meet standards and emissions levels, allowing it to compete on a global market”. This could mean it is starting not take its social legitimacy for granted which could facilitate Shell’s HSE implementation in future JV projects.

“We have a rigorous annual assurance process to make sure we are working to live up to our principles”, writes Shell Group executive Merer (Shell 2003:2), adding that “it is a tough learning journey. We must always keep a sense of humility about our ability to effect change”. More targeted funding to create a sense of policy commitment among clients and implementers as well as more stubborn insistence on HSE, both its inclusion in JV projects in the first place and its thorough implementation may clear the way for the policy’s implementation. The challenging context in which it operates considered, however, Shell China’s HSE policy implementation becomes a matter of political feasibility, of what it is reasonable to expect Shell China to be able to do under the current conditions. Shell China can surely do more, but it is, as we have seen, not only a matter of the company’s own efforts. Rather, it is highly context-dependent.

6.2 Summary

In this chapter I have used Najam’s (1995) 5C Protocol to analyze how barriers in the Chinese context influence and impede a successful implementation of Shell China’s HSE policy. I have thus analyzed the dynamics between the policy’s content, context, its implementers’ commitment and capacity as well as the clients and coalitions involved. In this case, policy content refers to the goals and methods of Shell’s HSE policy. The context is the institutional and geographical frames of the Shell Group, Shell China and China. While commitment refers to the will to action, capacity refers to ability to action. Last, a policy’s clients are the people whose actions is it meant to regulate and its coalitions are the people or groups which may for different reasons support or oppose its implementation. Among these five variables I see commitment and capacity as especially important in the case of Shell China’s HSE policy. Implementers’ commitment to this policy is hindered especially by the two barriers in the Chinese context which I have called short-term economic perspectives and conflicts of interest over goals. With continued economic development as its main priority, the state also sets an example for the people, enforcing these barriers in people’s mindsets. A great challenge for Shell China is thus to mitigate short-term

economic perspectives to create a sense of commitment among its employees and, especially, its subcontractors. Commitment can be enhanced through capacity allocation, which is a matter of quality rather than quantity, the difference being for example that of education and mere information provision. Successful HSE implementation is a matter of what it is reasonable to expect Shell China to achieve in China. In my opinion, much can be done to enhance commitment, and much has been done, but due to both the nature of the context, the clients, the company and the concept of implementation itself (which is not as straight-forward as it may at first seem), successful HSE implementation will have to a long-term project.

7 Conclusions

In this chapter I will draw conclusions based on the empirical and analytical contents from the previous chapters to answer my two research questions. I will also discuss to what extent Shell China is able to extend and renew its social legitimacy, as well the prospects of ecological modernization in China. In the last part, I discuss the transferability as well as some theoretical impacts of my findings.

7.1 What changes have happened in the Shell Group in the past decade to make it a more environmentally responsible company?

Major changes have happened in the energy industry in the past decades, and the Shell Group is one of the companies whose transformation has been most dramatic. After comparing it with the situation in 1995, I repositioned Shell as of 2007 in the category of *creative* responses for a number of reasons. First, internal changes have been made to establish a comprehensive environmental management system. It is emphasized that the aim is to manage the environment the same way it does everything else which shows that Shell is taking such matters seriously. Second, Shell has acknowledged the climate change threat and is promoting its mitigation through its internal emissions trading system; taking part in various CSR initiatives and instruments; and adapting to the challenges by focusing on new technology and energy diversification, thus discovering new directions for future development. Third, by establishing a Renewable energies unit and focusing on innovation, it is providing cleaner fuels while at the same time contributing to its own competitiveness through product and process offsets as well as image-based differentiation. Fourth, in funding and cooperating with civil society movements, it is enabling such movements to take on some of the nation state's old responsibilities. Fifth, by being on the forefront regarding CSR compliance as well as influencing its business partners and other companies, it is creating precedence for efforts that go beyond regulatory compliance. I therefore conclude that, all in all, significant changes towards becoming more environmentally responsible have happened in the Shell Group since 1995 when none of the Oil Majors studied by Estrada et al. (1997) fit the creative label.

7.2 Do these changes have relevance for Shell China or will barriers in the Chinese context influence its prospects to operate in a more environmentally friendly way?

Based on fieldwork interviews and literature, I have identified and discussed barriers to a more environmentally friendly energy production in China in its meeting with Shell China and how these barriers influence the implementation of Shell China's HSE policy. Based on my interviews as well as extensive use of literature, these are the three main barriers to a more environmentally friendly energy production in the case of Shell China:

- The role of the state;
- Short-term economic perspectives;
- Conflicts of interest.

First, the *strong state* is a barrier because in its role as JV partner for Shell China through the national energy companies whose licences to operate depend mainly on their ability to provide energy for further wealth creation; in that SEPA, China's main environmental agency, is too weak to face off against other agencies and ministries and create an good conditions for diversification of the energy mix; in being a factor hindering the development and competitiveness of renewable energy sources by way of creating unstable markets for long-term investments; and in limiting the potential for social movements to influence private and state-owned companies through activism and cooperation. The fact that Shell China is a business partner of state-owned companies such as PetroChina may inhibit its ability to contribute to a more environmentally friendly energy production, the way it appears to have done in the case of the West-East Gas Pipeline.

Second, media focus on China's "economic miracle" can make it hard to remember that it is very much a developing country. In a situation of economic insecurity it is difficult to see matters in anything other than *short-term economic perspectives*. China can thus legitimize industrializing in an environmentally unsustainable manner in order to raise its living standards. This does not, however, counter the notion that short-term economic perspectives are a barrier to environmental protection in general and to a more environmentally friendly energy production in the case of Shell China in particular. Environmental protection and clean-up; the implementation of environmental policies and diversification away from coal as the main

energy source, are all long-term efforts. Short-term perspectives on economic and environmental issues thus influence how the actors involved, including Chinese policy-makers and Shell's employees, managers, business partners, subcontractors, competitors, customers, investors and neighbors view environmental issues and thus their understanding of and adherence to both the Chinese environmental legislation and Shell's regulations. Environmental education, which could counter this, has so far has not been good enough to let the Chinese public know the *how, what, why* and *how long* of environmental protection necessary for them to commit to the cause. There may be signs of an institutionalization of environmental issues which can help solve this, however (section 7.3). Focus on short-term economic gains is also a barrier to environmentally beneficial innovation offsets, because they often demand upfront investments in R&D.

Third, *conflicts of interests* that arise both within a company and between companies and external actors have the potential to hamper implementation of environmental regulations and policies. This is a consequence of the involved actors having different goals. For Shell China's foreign staff, acting in an environmentally responsible manner is a question of social legitimacy vis-à-vis pressure groups and governments in Europe and of having realized that being "green" can be good for business. In addition, it is about higher levels of environmental awareness on the personal levels. For local staff, JV partners and subcontractors, environmental protection, HSE policies and time-consuming ESIA's may simply seem like additional expenses. It is not likely that this is because they do not see the importance to the individual of for example taking safety measures, but rather, because energy security, economic development and their own salaries are more important. Importantly, in the case of the state-owned JV partners, they have to act according to the state's agenda, which brings us back to the first barrier.

These three barriers contribute to and reinforce the challenges related to the *successful implementation of existing legislation*. Using the 5C Protocol I have discussed the prospects for a successful implementation of the Shell Group's HSE policy in the case of Shell China including how the three barriers influence it. On this I conclude tentatively that while *content, context, commitment, capacity* and *clients and coalition* are all important factors in policy implementation, the one which seem to stand out as most significant in our case is *policy commitment*. Rules and policies already exist and are continuously enhanced, but without commitment by the clients

as implementers, effective implementation is not likely to happen, regardless of optimal methods included in the content, favourable context, allocated capacity, complying clients or supportive coalitions.

I therefore conclude that not all, but some of the changes in the Shell Group have had some relevance for Shell China. First there has been a diversification to include renewables. Second, the Business Principles and updated HSE policy have influenced the ways in which the company interacts with its business partners and the coalitions relevant to its energy production, as seen in the case of the pipeline ESIA. Third, by funding environmental social movements it is enabling them to take on some of the nation state's old responsibilities, which could, in the long run, contribute to environmental awareness-raising and protection. The barriers that exist in the Chinese context, however, are strong enough to, to a large extent, hamper Shell China's environmental efforts, as seen in the case of both in the empirical example of the pipeline incident and the analysis of HSE policy implementation made in this thesis.

7.3 Shell China's potential for continued social legitimacy

Energy companies' social legitimacy is no longer a product only of their ability to provide energy and employment in a competitive way, rather, it is a mirror of how the public sees their role in society and how well or not they cope with new and increasingly demanding environmental and social challenges. Without presupposing that anyone in the general public or activists in the environmental social movements think of companies in terms of such an abstract concept, I expect the Shell Group's creative profile with everything it involves to be of importance to its own social legitimacy and that of its national operative company in China. Environmental social movements are increasingly globalized, concerned with global environmental degradation; and with access to information about industry and business operations worldwide. Thus, Shell China's social legitimacy depends on its ability to "impress" the Chinese public as well as international and European environmental social movements. This will likely not happen in the same way in both contexts, however, since social legitimacy in China to a larger degree than in Europe will be granted based on more than environmental and social issues. This means that the company has to act in a way which satisfies coalitions for the sake of its environmentally-based social legitimacy, while at the same time not forgetting to satisfy its clients, coalitions, investors and other stakeholders in energy provision and profit-making, which is also

going to be of importance to its social legitimacy. For its creative behavior to lead to an extended social legitimacy, Shell China has to communicate its efforts, as well as the reasons for these efforts, and achievements to both China and Europe.

It is therefore in the interest of both the Shell Group and Shell China to make progress on the environmental arena. Such progress could happen in the form of a more environmentally friendly energy production, but as we have seen, there are certain barriers in the Chinese context to such an achievement which need to be overcome. It is nevertheless my view that a renewed and extended social legitimacy in the case of Shell China is possible. Since what I am discussing here is mostly the relevant elements in the Chinese context, suffice to say that social legitimacy from Europe is likely to depend on climate change mitigation efforts; CSR commitment and adherence; energy diversification; and emissions reporting. Regarding the legitimacy stemming from China, this will be possible for several reasons. First, Shell China is in a mutually beneficial relationship with the Chinese state in which the company provides the country with energy while it at the same time makes voluntary environmental efforts (that is, due to pressure for civil society and governments at home) that go beyond regulatory compliance. It also funds environmental social movements and environmental education, helping to fill the gap the state's withdrawal has left open. Second, it has the capacity to contribute to environmental awareness-raising among its own employees and other actors, mitigating the short-term economic perspectives which impede policy implementation, employing annual assurance processes to make sure this happens. Third, awareness-raising and innovation offsets may contribute to new dynamics in the conflicts of interest in the shape of dilemmas between economic and environmental goals. There can be no guarantees that innovation leads to product and process offsets in the form of diminished expenses, but this is nevertheless consistent with Shell China's view that environmental responsibility promotes innovation which helps it "understand the business opportunities arising from changing values" (Shell 2003:4) and increases their effectiveness through eco-efficiency. Innovation is not likely to happen only in the form of "low-hanging fruits", but all offsets will neither be hanging on the top of the tree. In China, local issues are likely to take precedence over less tangible, global issues such as climate change. Thus specific examples of Shell China's responsible behavior are needed, such as its emphasis on the HSE policy; provision of solar and wind energy to remote areas; and Environmental Awareness Initiatives. If this is

successfully communicated to the public at the same time as cleaner energy is securely provided for both industry and people's homes, it will appear to uphold the "social contract" it, as a part of the energy industry, has with the people, by responsibly managing the natural resources.

In a scenario of economic growth *status quo*, higher living standards and economic security is expected to make the Chinese more aware of the damages to human health and ecosystems that the energy industry is causing. Environmental protection will thus become a personal matter contributing to policy commitment. It is in no way given, however, that the Chinese economic development will be able to continue its expansion since due to its scope and pace it is highly unsustainable. It is hard to say whether or not environmental awareness among common people will have a foundation on which to develop by itself in a situation of economic insecurity unless some special impetus is provided, such as an increased focus on environmental education. This notion's implications for an analysis involving the concept of social legitimacy will be discussed in section 7.4.

7.4 Prospects for ecological modernization in China

If any form of ecological modernization is indeed taking place in China, it would involve an institutionalization of environmental interests which according to Mol (2006) is indeed happening, albeit slowly. First, subsidies on natural resources are gradually abandoned to stimulate resource and waste efficiency. Second, increased environmental pollution fees have been developed, but because they are low and weakly enforced, industry actors will often rather take the risk and not pay them. Third, market demands are slowly beginning to include environmental and health implications of products and productions processes, a typical consequence of higher living standards. The developments in pricing, market and competition have not yet resulted in many non-state actors actively promoting environmental interests because they do not yet feel any significant pressure nor see any market opportunity. As mentioned in Chapter 6, Mol (2006:43) claims PetroChina is an exception to this as an example of "larger Chinese and joint venture firms that operate for and in a global market [and] are subject to stringent environmental standards and practices". This would mean PetroChina actually considers the public questioning of its role in society. Mol (2006:43) calls it a "call for upward harmonization among all players in the Chinese petrochemical sector". The fact that Shell China was dropped from the pipeline project contrasts the notion that PetroChina is responsive to foreign pressure

on environmental issues. To focus solely on how the state and PetroChina did not “want” Shell and UNDP’s ESIA and acted only according to economic goals, however, is too one-sided, since the purpose of the pipeline was to provide Eastern cities with an alternative to coal for fuel. After all, if China cared not at all for the environment, it could stick to its traditional energy mix. The state and PetroChina had to balance needs and priorities and in opting for gas provision in the Eastern cities, made a real effort to counter these cities’ environmental degradation.

Mol (2006) cites several key differences between European and Chinese ecological modernization. First, environmental interests have only partially been institutionalized in China, and there are no routines nor any automatic and full inclusion of environmental considerations in the institutions that govern production and consumption practices. Second, other institutions are taking on environmental responsibilities in China than in Europe. There has not yet been developed enough pressure from environmental interests to influence economic actors and institutions, and even if they wanted to, many economic institutions are dependent on the political, which may inhibit them from incorporating environmental interests into their operations. Civil society movements remain undeveloped and unable to perform the roles they do in Europe. Third, when it comes to the mechanisms, processes and dynamics that trigger environmental reform and push for institutionalization, there are important arrangements in China that have no European equivalent, examples of which are the GONGOs; the environmental responsibility system in which examination, rewards and punishment mechanisms are meant to ensure that community leaders take responsibility for environmental quality; the focus on the synchronization of design, construction and operational aspects of environmental management and production; and the informal networks and institutions (Mol 2006). The environmental domain has recently been included in the official Chinese definition of modernization (Zhang et al. 2007). What this means is that even though there are few clear indicators of a development of ecological modernization along its traditional European trajectories, there is potential for the inclusion of elements from this body of theories in future Chinese development strategies. Zhang et al. (2007) share the view with Mol (2006) that there *is* some degree of ecological modernization going on in China, but emphasizes that there is neither one optimal model for, nor one unique strategy towards it. Rather, it is a highly-time-place dependent concept.

Perhaps the biggest challenge to ecological modernization following the European trajectory in China today is the need to develop new forms of environmental governance including environmental social movements. My informants agree that the loosening up of restrictions on civil society activity is a part of the need for state actors to fill the gap between its own need and capacity to improve the environmental situation. One reason the Chinese state is limiting civil society activism is to avoid clashes and uprisings which could shatter its harmonious image. SEPA's compromise to allow some activism is perhaps a better strategy because if people are allowed to promote environmental awareness and pressure industry on the local levels, with partial support of the state, uprising could be avoided.

The cooperation between foreign companies and social movements or NGOs in China is a more likely tool for ecological modernization than relying on the national energy companies to be influenced and spread this influence within the national industry. Europe has a long history of conflicts between companies and civil society and social movements, as they tend to represent opposing interests. Since such movements are a newer phenomenon in China, their relationship to private companies may become quite different, since these companies have to some extent already had to improve their performance. It is also in the interest of the companies to cooperate with civil society movements for the sake of image differentiation. Since social movements and NGOs in China do not receive government funding, contributions from private companies will be important and may also help form positive relationships. This may of course also be negative for a movement's achievements if it has to take its benefactor's wishes into consideration in its activism. That, however, is another debate.

In Chapter 2 I mentioned how I, even if there turned out to be few clear signs of it in China, expected ecological modernization to influence Shell China because the Shell Group is to such a large degree subject to pressure and influence from European social movements and pressure groups. As I have concluded, however, the barriers in the Chinese context are turning out to be quite resistant to pressure, at least in the short-run, and more influential in the case of Shell China than environmental social movements in Europe. My initial expectation, based on Mol (2006) therefore needs to be modified.

7.5 Theory and methodology

In qualitative studies, transferability is not a goal *per se*, since the purpose of the study may be a greater general understanding of the study object in particular and not so

much its general relevance. For example, the way Shell China handles environmental demands in combination with the identified barriers and policy implementation challenges in China will likely have a great impact in any case due to the size of its investments and is therefore worthy of study in itself. When dealing with transferability, however, one must differentiate between, on the one hand, the possibility to transfer the findings to, in this case, other countries and companies by *recontextualization*; and on the other, the prospects of using one's the findings to *refine theory*. An analytical generalization or recontextualization of my findings would allow my results to be used in studies of similar cases such as other energy companies operating in China, especially other European companies. Since the barriers I have identified are elements belonging to the Chinese context and not to the Shell Group or Shell China, it would not be unreasonable to think that they could be similar in the cases of companies like Total or BP. In accordance with Yin's (1994) replication logic, the theory that is ultimately formulated thus becomes the vehicle for analytical generalizations to other case studies, as long as they belong to the scope of the theory, what Lincoln and Guba refer to as "fittingness" (1979).

In this case study, using an analytical framework based on a twelve year old study has turned out useful, since it has allowed for a comparison of the situation in the same company before and after major changes have taken place. This case study, however, also shows that both *context* and *time* matter greatly in the responses to environmental challenges made by transnational energy companies. My analysis is thus different from that of Estrada et al. (1997) in that they analyze the Oil Majors with little regard to the differing geographical contexts and change over time, leaving out important dimensions of the forces that shape industry and business. Thus, on the one hand, my comparison of the Shell Group's environmental profiles of 1995 and 2007 made it possible to include the time perspective. On the other hand, Najam's (1995) 5C Protocol enabled me to include contextual elements, solving a problem not addressed in Estrada et al.'s framework which is the notion that *social legitimacy is context-dependent*. A theoretical matter thus in need of some clarification is the question of what the levels of environmental awareness in China have to say for a study involving this concept. Estrada et al. (1997) emphasizes a company's stance on climate change as an important denominator of its position on the environmental response axis, and thus its prospects for renewed social legitimacy. Low awareness and a focus on local environmental matters in China, however, likely mean that the

general public is *not* very concerned with climate change, making it less relevant in their granting of social legitimacy to companies. If this is in fact the situation, then not only is environmentally responsible behavior not going to be the sole key to modern-day social legitimacy, but Estrada et al.'s (1997) framework may not be as applicable to developing countries and less environmentally aware populations as they are to industrialized countries. After all, they presuppose a certain level of environmental awareness to produce the kind of pressure needed to influence the big energy companies. In my case, however, this is partially made up for by the globalization of environmental social movements made possible by the revolutions in information technology. This, and the fact that the Shell Group is among the world's most (in)famous companies means both it and Shell China continue to be under the scrutiny of the European civil society and environmental social movements. In addition, Chinese economic nationalism helps keep check on foreign companies, giving them less room than the national companies to act wastefully.

My study of Shell China shows that Estrada et al.'s (1997) framework is relevant to this analysis, but that the three environmental response categories should be made more nuanced to fit new challenges. The characteristics of the creative company need refinement since it is likely that being a frontrunner today takes more than climate change acknowledgement and an embryonic diversification to renewable energies. Clearly, increased focus is needed on the influence of *context*, especially when dealing with presents and future key actors like China.

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13. Have you heard the notion of the “social legitimacy”? How do you understand this? Does a company need “social legitimacy” to operate in a given place?
14. How can a company’s actions influence its image?
15. How can a company’s image influence its strategies and, in turn, its actions?
16. Regarding “green” technology and environmentally friendly energy production, what development has there been since 1990?
17. Are the Shell Group or Shell China party to any CSR instruments? Why/why not?
18. Increasingly stronger environmental regulations and laws apply to the energy industry at the same time as society and industry use more and more energy. How shall this predicament be solved?
19. Some scholars claim that the only actors strong, effective and resourceful enough to make sustainable development happen, are big business and transnational companies. What do you think of this notion?
20. China has an impressive set of laws and regulations for dealing with the country’s environmental problems, to what extent do they follow through on this?
21. In what way does the Chinese government influence the implementation or realization of Shell’s environmental strategies?
22. How are the company’s environmental strategies coherent with China’s environmental laws and regulations?
23. Does Shell China meet resistance from Chinese government officials regarding the goals of its environmental strategy? Do they welcome or resist it?
24. Does Shell China meet reactions from Chinese subcontractors regarding the goals of its environmental strategy? Please give example.
25. What is Shell China’s relationship to NGOs (national, foreign, international)?
26. Does the company feel any pressure from international and national civil society movements or NGOs?