

**CORPORATE SOCIAL AND  
ENVIRONMENTAL RESPONSIBILITY**

**THE UPSTREAM PETROLEUM SECTOR  
IN SOUTH-EAST ASIA  
WITH PARTICULAR REFERENCE TO THAILAND**

STATEMENT OF ORIGINALITY

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*Julia Helen Martin*

Julia H. Martin  
September 2000

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ENVIRONMENTAL RESPONSIBILITY  
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IN SOUTH-EAST ASIA  
WITH PARTICULAR REFERENCE TO THAILAND**

A thesis submitted in fulfilment of the requirements  
for the Degree of Doctor of Philosophy  
of The Australian National University

by

JULIA HELEN MARTIN

September 2000



## Errata

Page ii text line 10. Replace “has” with “have”

Page 51 Section 3.3.2 text line 2. Replace “That is, the historical and cultural...” with “In this regard, the context pertains to the historical and cultural ...”

Page 51 Section 3.3.2 text line 6. Replace “That is, to develop an understanding” with “These sources were selected to develop an understanding”

Page 78 text line 36. Replace “coming” with “come”

Page 91 text line 12. Replace “One characteristic of which, is a tendency...” with “One characteristic of these moulded attitudes is a tendency ...”

Page 97 text line 1. Replace “so it assumed” with “so it is assumed”

Page 100 text line 22. Insert “attitudes” after “disinterested”

Page 120 text line 25. Replace “the World Bank),” with “the World Bank,”

Page 125 text line 12. Replace “repealed” with “replaced”

Page 172 text line 31. Replace “Thailand’s” with “Thailand”

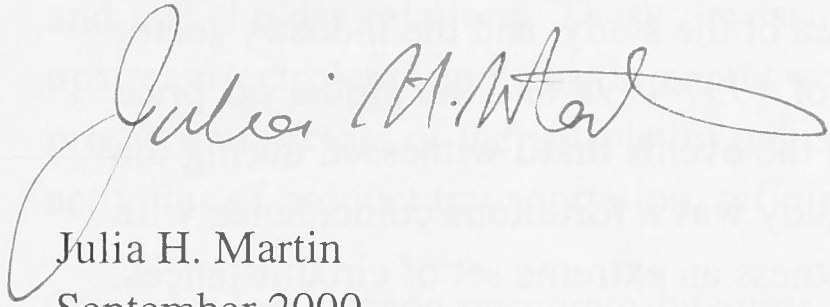
## Additional Note to Readers

### *In regard to Section 7.4.4 Regulatory Instruments*

It should be noted that the drawback to command and control regulation is the tendency for regulators to specify the methodology and technology to be applied, rather than the objective to be achieved. The “how to” regulatory technique inhibits rather than encourages the application, because the new technology does not adhere to the law. The Texaco experience in Ecuador clearly shows that merely adhering to the law is inadequate. While there should be a minimum set of standards to which all petroleum operations must adhere, there also has to be an opportunity for goal setting regulation to which top performing companies can subscribe. Allowing for the achievement of goals also provides the opportunity for creative measures to be implemented that go well beyond minimum regulations. The “bottom line”-minded manager would not invest any funds beyond minimal compliance without an opportunity to realise gains of a fiscal or reputation nature.

## STATEMENT OF ORIGINALITY

Except where otherwise noted, this thesis is entirely the result of my own research.



Julia H. Martin  
September 2000

The last four years have provided a fascinating journey. It has been taken during a period of great volatility in both the geographic area of the study, and the industry sector that I chose to profile. The Asian currency crisis of 1997-1998 and the global oil price roller coaster of 1996-2000 had marked effects on the events that I witnessed during the study. Initially, I thought that the timing of my study was a fortuitous coincidence with these events, providing a unique opportunity to witness an extreme set of circumstances. Now with the benefit of some hindsight and an historical perspective, such macro scale events are typical of those that have been the catalysts of change in the behaviour of the public, governments and industry over the course of the last century. I trust that this study goes some way to explaining how the attitudes of the petroleum industry has been moulded and manipulated by such factors.

I gratefully acknowledge the assistance provided by my interviewees who made themselves available for fascinating and challenging discussions, and provided me with such a frank and open insight to their experiences.

Thanks to the staff of the Centre for Resource and Environmental Studies for the support provided to me during this study, and to The Australian National University for the provision of a Post-Graduate Research Scholarship and research facilities.

Many thanks to my supervisory panel, Professor Henry Nix, Professor Neil Gunningham and Dr Gillian Burke for their support and reality checks. Henry, thank you for your on-going encouragement, and for giving me the latitude to track my own course. Neil, thank you for your rigorous and incisive feedback, and constant challenges. Gillian, your input, albeit rare, was always interesting and appreciated.

Thanks to my family and friends and peers for their on-going interest and moral support. You can all relax now, it's finished!

Finally, special thanks to John, for convincing me to start the journey and for being such a patient and supportive travelling companion.

The principal focus of this study is corporate social and environmental responsibility and stakeholder relations. These are issues that have emerged as key concerns for the upstream petroleum industry in recent years. ('Upstream' refers to the exploration and production sectors of the petroleum industry, as compared with the 'downstream' sector activities of product transportation, refining, distribution, and sales).

Over the last decade corporate business strategy has increasingly being influenced by 'green' environmental pressures and social pressures from stakeholders to demonstrate corporate social and environmental responsibility (CSEER). Such challenges pose business risks to industry, with far-reaching commercial implications. The underlying theory for CSEER suggests that in order for industry to maintain its legitimacy ('licence to operate'), it is in industry's long-range self-interest to be environmentally and socially responsible.

Researchers have suggested that the corporate strategic responses to such challenges are determined by the interaction of a set of key external and internal influences and constraints. Thus environmental strategy will be a product of business influences, industrial contingencies, and the rewards that a company can expect to achieve by executing a specific environmental strategy. Attempts have been made to define a relationship between decision-making processes and the development of strategic environmental policies, and hence the investment decisions that flow on from these actions. One approach is to take into account internal and external behaviour-altering factors that have an impact upon a company. Such factors include market influence, legal-regulatory influences, social expectations, corporate culture and ethics, organisational adaptability, capital availability, opportunity and cost assessment and technology.

The key objective of this study is to test the influence of these factors and prevailing regulatory frameworks on the corporate social and environmental management practices of upstream petroleum companies operating in South-East Asia, and Thailand in particular. Using qualitative techniques, this empirical research project investigates the influence of corporate behaviour-altering factors on the practices adopted by upstream petroleum companies. Case studies from Thailand are used as in-depth analytical examples.

The findings of this study suggest that the petroleum industry, in general, is moving along a path towards improved environmental performance and acceptance of its corporate social responsibilities. However, despite the good intentions of many managers, the petroleum industry, like any commercial business, will depend upon profit-making for survival. Petroleum exploration and production are commercial activities that are strongly motivated by the bottom line—the industry's primary business objective is to maximise profit. Expenditure and innovation are directed towards improving efficiency and effectiveness in finding oil and gas reserves and

recovering these at least cost. Environmental issues are often viewed as hurdles that interfere with project scheduling, and add expense, with no tangible benefit. Where environmental management is actively practiced, it is commonly driven by a strong regulatory regime; or managerial initiatives where there is a perceived market benefit from being seen to be 'green', or as a result of lessons learnt from punishments for past misdemeanours.

The findings of this research also suggest that inappropriate legislation, regulations and administrative approaches result in poor process and outcomes and, in some cases, may deter companies from fulfilling their corporate social responsibilities. When the environmental regulatory system and third party monitoring framework are ineffective, company managers can easily find other higher priorities to which they should turn their attention. The practical reality and financial pressures of conducting profitable businesses in a highly competitive market will continue to be the key influence on day-to-day operations of petroleum companies.

Changes in corporate performance objectives towards greater corporate social and environmental responsiveness will inevitably take time. Long-held assumptions and working practices will need to be continuously challenged. Governing regulatory frameworks need to incorporate sufficient flexibility to allow companies to pursue market opportunities, while also harnessing the power of peers and third parties to maintain corporate social responsiveness performance standards. Some form of regulatory change is therefore required to make both the industry and its regulators more accountable and responsible for addressing the broader demands of society.

The findings of this research suggest that opportunities for improvement may lie in the harnessing of the assistance of industry peers and third party stakeholders. Within the petroleum industry, joint venture partnerships and industry associations provide mechanisms for applying performance pressures to other petroleum companies. They are well aware that reputation has a tangible value in the marketplace, and that the industry is judged by the performance of the worst performer. Marketplace pressure may also be harnessed through shareholder investment preferences, stock exchanges, and financial institutions that provide venture capital. These stakeholders, together with special interest groups have the ability to apply financial and shaming pressure to companies to drive continuous improvement of their social and environmental responsiveness.

Governments may not be able to dedicate more personnel resources to enforcement of performance standards, but some reform of legislation to broaden corporate governance requirements that address CSER within directors liabilities, together with strengthening of public standing and public involvement in planning and development approvals processes, could empower third parties to take a more active role in sharing the enforcement burden. Other benefits include more constructive engagement in finding multilateral solutions to local and regional environmental problems.

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## INTRODUCTION

"The bottom line: all players must learn to be guided from the experience of others when looking at how to handle some of the most controversial, the ones in the environment, human rights, labor standards or corruption. Dealing with potential problems early and before they become expensive public relations nightmares—all make all the difference in the long run. ... If many have already found in their cost, one option is likely to be available is trying to quantify the issues raised by pressure groups. ... The big question must surely be how oil in the volatile 'wild business' sector is growing and if it is possible to social responsibility with a continuing drive to the reserves in ever more remote parts of the world" (Vothrock, 1997b).

# CHAPTER 1

## INTRODUCTION

*“For multinational oil players, much can be gained from the experience of others when looking at how to handle potential areas of controversy, be they in the environment, human rights, labour standards or corruption. Dealing with potential problem areas early on—before they become expensive public relations nightmares—will make all the difference in the long run. ... As many have already found to their cost, one option unlikely to be available is trying to ignore the issues raised by pressure groups. ... The big question must surely be how oil as the ultimate “risk business” squares the growing calls for it to exercise its social responsibilities with a continuing drive to find new reserves in ever more remote parts of the world” (Valebrokk, 1997b).*

## 1.1 RESEARCH FOCUS AND HYPOTHESIS

The business world has undergone extensive changes over the last three decades, as evidenced by the emergence of globalising companies operating across many geographic boundaries; increasing performance expectations of society; and changing regulatory frameworks. For the petroleum industry, the modern business environment presents many challenges. One of these is the increasing demand for the industry to take on more corporate responsibility for its social and environmental impacts, under the implicit threat that society will revoke its 'licence to operate'. This pressure first emerged in the developed countries of North America and Europe, but it is now becoming more widely evident in developing countries. Increasing levels of education, affluence, and communication with external groups, have given local communities in these countries a new level of empowerment.

In light of the changing character of society and community expectations, government policymakers are recognising the need to encourage companies to be more responsible for their activities. At the same time, reductions in government spending have led to downsizing of regulatory agencies and diminished regulatory enforcement capabilities. The challenge for regulatory reformists in developing countries is to design cost-effective, efficient and equitable regulatory frameworks to reduce the burden of regulatory enforcement on resource-constrained governments, while ensuring that stakeholder expectations of industry performance are met, and the business continuity of industry is preserved.

It is increasingly recognised that regulatory reform frameworks need to be tailored to suit the context in which they are to be applied—this is the essence of 'responsive regulation'—regulation that responds to the particular circumstances of the industry in question (Ayres and Braithwaite, 1992; Gunningham, 1998a). In the petroleum industry, business strategies are closely linked to the global market price of oil, gas and liquefied natural gas, and the need to quickly respond to pricing changes, for example by curbing exploration and operating expenditure and down-sizing. Within this industry there are also distinctive cultures in its 'upstream' and 'downstream' sectors. The upstream (production and exploration) sector is characterised as a risk-taker, with a tendency to be transitory, i.e. moving from location to location in search of exploitable reserves, as economic, political and technological opportunities and constraints allow. Whereas the downstream sector, with its refineries and associated infrastructure, operates more like the chemical industry, making long-term investments in a particular locality. These unique cultural characteristics influence management attitudes to regulatory requirements and the interests of stakeholders, and are reflected in the social and environmental management strategies of individual petroleum companies.

A role for academic research is to improve our understanding of how particular industry sectors operate from a regulatory perspective (Fischer and Schot, 1993; Moser, 1998; Gunningham, 1998b). Such knowledge can enhance the basis upon which regulators and policymakers formulate regulatory frameworks, in their quest to harness corporate virtue and develop industry-regulator-community partnerships. This thesis analyses how upstream<sup>1</sup> petroleum companies perceive and respond to the performance expectations expressed by their external stakeholders (regulators and the public), with a view to identifying how best to harness these influences to encourage responsible social and environmental management practices. This study focuses specifically on the contextual issues associated with upstream petroleum companies operating in South-East Asian countries, using Thailand as a case study.

The following hypothesis forms the basis for this research:

*The social and environmental responsiveness practised by companies is moulded by their assessments of the business risks posed by the stakeholder environment. In the absence of a socially acceptable balance of power between companies, their regulators and third party stakeholders, company management practices will tend towards a minimalist position to maximise financial returns.*

The supporting propositions of this hypothesis are as follows:

*Proposition 1. Command and control regulatory approaches are unsuitable for application in developing economies where the enforcement capacity of regulators is constrained by political and financial factors. In these circumstances, companies may exploit regulatory and/or political loopholes in the interests of business expediency.*

*Proposition 2. Companies make strategic choices in the formulation of their business plans. Company managers will adopt self-regulatory initiatives and move beyond compliance where they perceive that they will derive benefits, such as avoidance of increased regulatory compliance costs, improved internal management of operating risks, and improved reputation; and/or where setting higher industry standards will give them an advantage over their competitors.*

*Proposition 3. Companies most amenable to making changes that improve their social and environmental management practices will be those whose managers have*

---

<sup>1</sup> 'Upstream' refers to the exploration and production sectors of the petroleum industry as compared with the 'downstream' sector activities of product transportation, refining, distribution, and sales. This study focuses on the issues associated with corporate environmental management performance by the upstream petroleum sector, but it is recognised that the commercial drivers of the upstream sector are inherently tied to the business objectives and operations of the midstream and downstream sectors of the industry. Hence references to the midstream and downstream sectors are also made throughout this study.

*undergone learning processes as a result of corporate experiences within their own organisation, or those of their peers; and/or are subject to stringent corporate governance systems, home-country environmental standards and regulatory controls.*

## 1.2 THESIS STRUCTURE

The thesis is structured as follows:

*Chapter 1* provides the background and introduction to the research topic, and outlines the research hypothesis and propositions.

*Chapter 2* outlines a theoretical framework that describes the behavioural dynamics of company-stakeholder relations and their influence on corporate social and environmental management strategies. These are drawn together into a conceptual model to describe influence-response relationships that form the basis of corporate social and environmental responsiveness, for the purpose of analysing the corporate strategic management practices of upstream petroleum companies.

*Chapter 3* presents the research approach and methodology that was applied in this study.

*Chapter 4* provides an empirical overview of the characteristics of the upstream petroleum industry. Detail is presented on the history and structure of the upstream petroleum industry, its business culture and practices, and its responses to business pressures exerted by stakeholders (i.e. regulators, joint venture and contract partners, contractors and consultants, industry associations, non-government organisations, public interest groups, local communities and the media).

*Chapter 5* provides an overview of the environmental regulatory frameworks of developing countries in South-East Asia, focussing specifically on Thailand. Characteristic problems of the existing Thai framework are discussed in the context of the upstream petroleum industry, using empirical examples.

*Chapter 6* presents two empirical case studies from the Thai petroleum sector to illustrate the tensions between company project objectives, regulator expectations and third party stakeholder expectations. The case study observations are used to identify: (i) the factors that affect company managers' perceptions of their corporate social and environmental responsibilities; and (ii) how and why companies chose particular management strategies.

*Chapter 7* analyses the meaning of corporate social and environmental responsibility in the Thai context, to identify a framework for its guidance through the creation of roles for the petroleum sector, regulators and third party stakeholders (community and public interest groups).



*Chapter 8* presents the conclusions and recommendations arising from this research.

### 1.3 BACKGROUND TO THE STUDY

#### 1.3.1 Community Expectations and Influence

The social framework within which the petroleum industry operates is rapidly changing. At the community level, these changes are evident through: (i) increased levels of public education; (ii) weakening of the role of governments (due to increasing political and fiscal constraints); (iii) reduced public respect for the authority of government and business; (iv) increased public expectations in regard to openness and accountability; and (iv) globalisation of communications and rapid dissemination of information through multimedia (Winsemius and Guntram, 1992).

As a consequence of these changes, the petroleum industry is experiencing increasing expectations from the stakeholder community in regard to social and environmental management (Thomas, 1992; Hoffman, 1995). Williams *et al.* (1993) suggest that externally-driven performance demands are appearing as: (i) increasingly stringent environmental legislation and enforcement; (ii) increasing costs associated with pollution control, waste disposal, and effluent disposal; (iii) increasing awareness on the part of investors of companies' environmental performance in view of the cost implications associated with liability and the 'polluter-pays' principle; (iv) increasing training and personnel requirements, together with additional information requirements; and (v) increasing stakeholder expectations in regard to environmental practices.

If ignored or disregarded, these demands may have broad and substantial adverse implications for petroleum companies. For example, the associated business risks may include increases in: (i) establishment costs (seed investment); (ii) compliance costs (technology and business practices necessary for compliance); (iii) costs of sanctions (fines, imprisonment, personal liability of directors and managers); (iv) financial assurance requirements; (v) civil claims (common law damages); (vi) statutory and common law clean-up obligations; (vii) natural resources damages claims; (viii) direct lender liability; (ix) adverse publicity; (x) loss of production and staff morale; (xi) increased insurance premiums; (xii) increased financing costs; (xiii) legal costs in defending criminal and civil actions; (xiv) future liability to provide indemnification agreements and warranties; and (xv) revocation of regulatory licenses and permits (Stevenson, 1993).

To illustrate, the *Brent Spar* disposal controversy caused the Royal Dutch/Shell corporation losses of several million dollars, through public outrage over a proposal that had been approved by the regulatory authorities. *Brent Spar* is a large floating storage facility that was used by Shell Expro (an operating company of the Royal Dutch/Shell Group) between 1976 and 1991 to store oil extracted from the *Brent* Field, offshore north-east Shetland, UK. At the end of its functional lifetime, Shell Expro investigated

options for disposal of the buoy. Owing to its structural weakness, and the risk of structural failure if it was brought ashore for disposal, Shell Expro focussed on the possibilities of dumping the storage facility at sea. Dumping in the shallow waters of the North Sea was rejected on environmental grounds, but disposal in the deeper waters of the North Atlantic was adopted as Shell Expro's favoured option (Neale, 1997). The British Government duly approved this option. However, a large-scale, community outrage campaign ensued, primarily orchestrated by the environmental non-government organisation (NGO), Greenpeace. Finally, in response to the intense public pressure, Shell Expro revoked its decision to dump the *Brent Spar* at sea, and embarked on a multipartite stakeholder consultation programme to determine a more socially acceptable disposal option.

From the industry perspective, there is a concern that such community hostility will also result in long-term business risks, such as barriers to resource access in sensitive or contested areas. Greenpeace's point, in regard to the *Brent Spar* controversy, was that decisions about petroleum industry practices such as pollution control and waste disposal should not be determined on strictly technical scientific grounds, nor by industry and its regulators alone.

*"The Brent Spar campaign ...was not an attack on science, it was about the limits of science—the uncertainties and the areas where politics, economics and industrial policy, not ecology and toxicology, determine what is best for the environment"* (Melchett, 1995 cited by Neale, 1997, p. 98).

From his case study of the *Brent Spar* incident, Neale (1997) concluded that:

*"While the Brent Spar experience was unique, there are valuable lessons which other businesses seeking to improve their environmental performance might learn from it. One might be to develop an external focus before this is imposed on them by forces outside their control, by building the alliances that are needed to innovate environmental best practice in all countries in which they operate, ending the exploitation of national differences which can expose them to the charge of operating double standards. Most importantly, they could recognise the contested nature of the environments in which they operate, and seek to 'engage not enrage' the various interests involved"* (Neale, 1997, p. 101).

Grolin (1998) suggests that this incident clearly showed that reduced public regard for the institutions of state and science has caused corporations to lose their previous key sources of legitimacy, while public demands of accountability by corporations have increased significantly. Examples like the *Brent Spar* incident have signalled that petroleum companies can no longer function in isolation from the society in which they operate—external stakeholders will not allow them to do so.

As Carroll (1996, p. 95) candidly states,

*“Business has been and will continue to be subjected to careful scrutiny of its actions, practices, policies, and ethics. This is the real world in which management lives, and management must accept it and deal with it. Criticisms of business and cries for corporate social responsibility have been the consequences of the changes in the business/society relationship, and the stakeholder management approach to viewing the company has become one needed response. To do less is to refuse to accept the realities of business’s plight in the modern world and to fail to see the kinds of adaptations that are essential if businesses are to prosper in the present and in the future.”*

Chris Fay, in his role as Chairman and Chief Executive Officer of Shell UK, suggested that the petroleum industry has passed the point for excuses—concerns over the environment, health and safety, and broader social goals are not “optional extras” for companies. *“We can no longer say to society, ‘Trust us’. Now it’s a ‘show me’ society”* (Fay cited by Knott, 1998, p. 37).

Such messages suggest that in order for the petroleum industry to maintain its legitimacy to continue to operate within a changing society, it is in *“business’ long-range self-interest to be socially responsible”* (McPhail and Davy, 1998).

### **1.3.2 Corporate Social and Environmental Responsiveness and Regulatory Reform**

Corporate social responsiveness (Frederick, 1978; Carroll, 1996) or corporate ‘virtue’ (Ayres and Braithwaite, 1992; Shearing, 1993; Haines, 1997) refer to the way in which companies act on their perceived corporate social responsibility (CSR). Put simply, corporate social responsibility refers to the interaction of the corporation with the legal and social obligations of the societies in which it operates, and how it accounts for those obligations<sup>2</sup>. Processes of corporate social responsiveness may include, for example,

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<sup>2</sup> There is no universally acceptable definition of corporate social responsibility (CSR). The cornerstones of CSR are defined by Wood (1991) as the institutional principle (legitimacy), the organisational principle (public responsibility), and the individual principle (managerial discretion). Sheikh (1996, p. 1) defines CSR as *“the assumption of responsibilities by companies, whether voluntary or by virtue of statute, in discharging socio-economic obligations in society”*. Carroll (1996, pp. 37-38) proposed a more comprehensive four-part definition of CSR: *“The social responsibility of business encompasses the economic, legal, ethical, and philanthropic expectations placed on companies by society at a given point in time.”* More recently, the World Business Council for Sustainable Development (WBCSD) Stakeholder Dialogue on CSR, held in The Netherlands in 1998, proposed the following definition: *“Corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of the workforce and their families as well as of the local community and society at large”* (WBCSD, 1999a).

environmental assessment, stakeholder management and issue management; while outcomes may include social programs and social policies (Wood, 1991).

The World Business Council for Sustainable Development (WBCSD) has engaged in a stakeholder dialogue program to frame the debate on corporate social responsibility; identify the perspectives of a broad cross-section of stakeholders; and identify ways in which industry, government and community groups could work together to alleviate current concerns. As part of this program, the WBCSD, in association with the Thailand Business Council for Sustainable Development (TBCSD) and the Thailand Environment Institute (TEI) consulted a cross-section of Thai opinion leaders, to define CSR in the Thai context<sup>3</sup>. The stakeholders reviewed the WBCSD Working Group's draft definition of CSR for its relevance to them, and suggested the following modifications highlighted in bold:

*“CSR requires the continuing **or increasing** commitment by business to behaving ethically and contributing to economic development, **increasing the obligation** in improving the quality of life of the workforce and their families as well as of the local community and society at large”* (WBCSD, 1999b).

This definition, however, was perceived by the Thai stakeholders to be missing recognition of the need to: (i) mitigate environmental impacts (including impacts on the social environment); (ii) prevent environmental impacts; (iii) demonstrate transparency and protect consumer interests; (iv) improve people's attitudes towards the environment through education; (v) be good corporate citizens; (vi) demonstrate good governance; and (vii) address youth and gender issues (WBCSD, 1999b).

For the purposes of this research, the definition of corporate social responsibility has therefore been expanded to specifically address environmental management responsibilities. Herein it is referred to as corporate social and environmental responsibility (CSER).

Another outcome of the Thai stakeholder dialogue were the following definitions of the rights and responsibilities of business, government, and society in making business more sustainable through market mechanisms:

- i) The government's key role and responsibility is described as that of the regulator and enforcer. Government's role is also perceived to be to create reliable framework conditions that reward good company behaviour, and enhance market

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<sup>3</sup> The program consisted of a dialogue session in Thailand in June 1999 involving interviews with 15 Thai opinion leaders from the business and non-business community, and a full day workshop with approximately 25 local experts from various fields including business, media, government and NGOs (WBCSD, 1999b).

mechanisms that promote the development of more sustainable products and services.

- ii) The role of business, at a minimum, is perceived to be to respect the laws and regulations. Additional performance expectations include: adoption of international environmental standards (e.g. ISO 14000 series); improvement of the environmental awareness of consumers and employees, participation in voluntary initiatives (such as compliance with codes of practice); integration of responsibilities and accountabilities for sustainable development; and allocation of part of annual profit to help improve society.
- iii) The main role of civil society is perceived to be to act as a watchdog. Specific duties are perceived to be to: pressure government to enforce regulation and “modernise” infrastructure; pressure business to behave responsibly; increase environmental and social awareness within civil, business and communities and governmental institutions; and raise consumer demands for “greener” products. In addition to the role of civil society, the mass media is perceived to have a particular role in raising the profile of sustainability issues, reporting on examples of both good and bad practices, and putting pressure on laggards from all stakeholder groups.

Such opinions indicate that the challenge for policymakers and regulators is to identify the most effective means of encouraging or coercing industry to adopt greater responsibility for managing its social and environmental impacts in a manner that is acceptable to the broader stakeholder community (Sheikh, 1996).

To address this challenge, the regulatory reform debate has become focussed on the concept variously known as ‘responsive regulation’ (Ayres and Braithwaite, 1992), ‘responsible regulation’ (Vaitilingam, 1993), or ‘smart regulation’ (Gunningham, 1998a).

The aim of this type of regulation is to provide a judicious mix of persuasion and punishment with which to harness the virtue within organisations (Ayres and Braithwaite, 1992; Porter and van der Linde, 1996; Stone, 1987; Stone, 1996).

This approach to regulation is defined according to its suitability to simultaneously satisfy three criteria (the 3E-test): *effectiveness* (contributing to improving the environment); *efficiency* (improving the environment at the minimum cost); and *equity* (showing fairness in the burden sharing among players) (Vaitilingam, 1993). Recently, other researchers (e.g. Gunningham, 1998a) have also added a fourth criterion, *political acceptability* (which includes factors such as liberty, transparency and accountability).

The specific design objectives of this regulatory approach are to:

- i) ensure accountability and responsibility by regulators and industry;
- ii) allow industry sufficient flexibility to be innovative and adapt to the continually changing demands of the marketplace, without being constrained by overly prescriptive regulations; and
- iii) provide a safety net for society's interests<sup>4</sup>.

To ensure that these objectives are achieved, Gunningham (1998a) suggests that the implementation of regulatory instruments can be enhanced by providing roles for a range of participants or stakeholders to participate in watchdog or partnership roles. Based on this premise, it is suggested that design of 'smart' regulation needs to be grounded in a solid understanding of how business managers perceive their corporate social and environmental responsibilities, and how they perceive and respond to stakeholder expectations. Furthermore, it is recognised that the context within which organisations act is fundamental to our understanding of corporate responsiveness (Shearing, 1993).

Every industry sector has its own distinctive character and set of behavioural influences. The objective of 'smart' (responsive) regulation is to strive to define the optimal balance between the objectives of the regulators, the community, and companies, recognising their respective strengths and weaknesses, and the opportunities and threats that are posed by the situations in which they operate. Therefore it is suggested that legislators need to have an understanding of the business environment in which particular industry sectors and subsectors operate, in order to identify the appropriate regulatory instruments for application in that context. This study seeks to contribute to that understanding by defining those parameters for the upstream petroleum industry operating in South-East Asia.

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<sup>4</sup>These criteria have been widely espoused in policy discussion papers by industry organisations and legislators, alike. The Australian Manufacturing Council (AMC) published a discussion paper on 'Best Practice Environmental Regulation' (AMC, 1993, cited by Stone 1996) that identified 10 principles for best practice regulation: certainty, communication, consultation, cost-effectiveness, efficiency, flexibility, integrity, practicality, responsibility and transparency. AMC (1993) believes "*best practice regulation is a regulatory regime that is demonstrably predictable, strategic, integrated, relevant, systematic, responsive, has high levels of scientific, financial and social integrity, is collaborative and visible*".

Similarly, Clinton and Gore (1995, cited by Stone, 1996) emphasised 10 key principles in their policy paper on 'Reinventing Environmental Regulation'. Their principles include: (i) environmental regulations must be performance-based, providing maximum flexibility in the means of achieving environmental goals, but requiring accountability for results, and (ii) decision-making should be collaborative, non-adversarial, and decision makers must inform and involve those who must live with the decisions.

# CHAPTER 2

## ANALYTICAL FRAMEWORK

*“We’ve now come to an important moment in the consideration of the environment. It is a moment when we need to go beyond analysis to seek solutions and to take action. It is a moment for change and for rethinking of corporate responsibility”* (John Browne, Chief Executive Officer, British Petroleum Co. plc, 19 May 1997).

## 2.1 INTRODUCTION

Corporate social and environmental responsiveness reflects a deliberate, strategic choice by company managers to acknowledge and address particular internal and external performance expectations. These expectations may be communicated via cultural, political, legal and/or economic demands from stakeholders. By developing an understanding of how companies perceive and respond to these demands, one can develop a conceptual model with which to analyse empirical observations of corporate management behaviour in specific situations, and hence identify the triggers that promote the desired behavioural change towards corporate responsiveness.

The aim of this chapter is to review theoretical models of corporate management behaviour to construct a framework to explain the dynamics of company-regulator-stakeholder relations and the resultant impact on the processes of corporate responsiveness.

The chapter is structured as follows. Section 2.2 outlines the theory of corporate strategic management and its key components. This provides a structure for analysing the steps that companies may follow to assess their corporate responsibilities and develop management strategies. Section 2.3 explains how the external influences of the stakeholder environment, such as corporate governance and stakeholder claims, can influence company managers' perceptions of their legal and ethical responsibilities. Section 2.4 reviews some theories of strategy formulation, i.e. strategy development as 'managerial intent', 'the outcome of cultural and political processes', and 'imposition'. Section 2.5 discusses the types of legitimation strategies that companies may employ to achieve their business objectives. Section 2.6 reviews theoretical models for categorising corporate social and environmental strategies. Section 2.7 synthesises the theoretical concepts discussed in this chapter, to construct a conceptual analytical of influence-response relationships to demonstrate how internal and external influences mould corporate social and environmental responsiveness.

## 2.2 CORPORATE STRATEGIC MANAGEMENT

The following discussion is based on the tenet that company managers exercise 'strategic choice' when formulating and implementing management decisions. That is, they may select the contexts in which the company will operate (sectors, markets, countries, etc.), and that within the selected contexts, there may be some scope to negotiate and work with external stakeholders (Child, 1972).



A 'strategy' can be described as:

*"the direction and scope of an organisation over the long term: which achieves advantage for the organisation through its configuration of resources within a changing environment, to meet the needs of markets and to fulfil stakeholder expectations"* (Johnson and Scholes, 1997, p. 10).

'Strategic management' is

*"the process by which top management determines the long run (strategic) direction and performance of the organisation by ensuring that careful formulation, proper implementation, and continuous evaluation of the strategy takes place"* (Alkhafaji, 1989, p. 265).

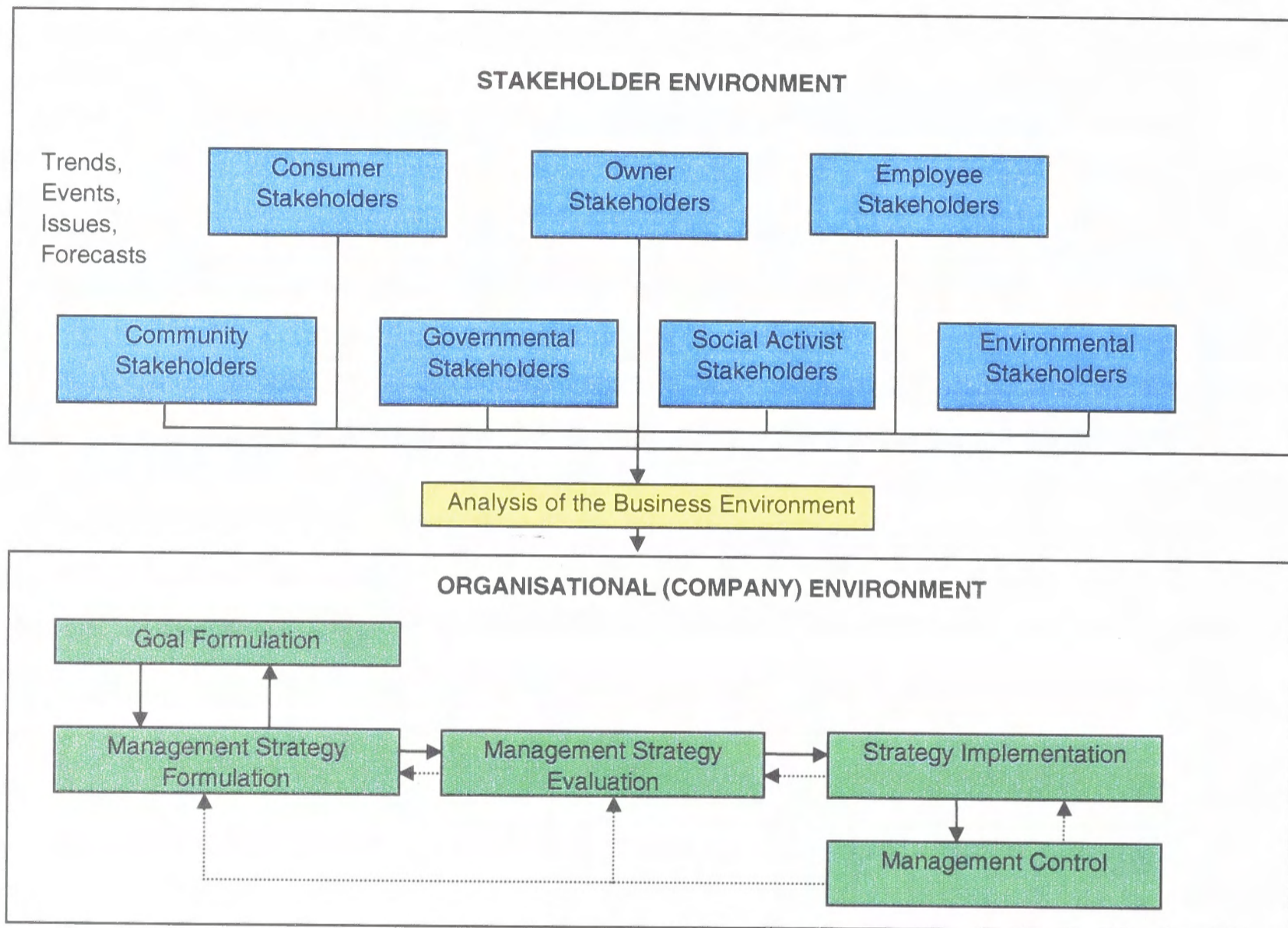
The formalised practice of strategic management has evolved over the last four decades in response to increasing turbulence in business' surroundings or business 'environment' (Hunger and Wheelen, 1996; Forster and Browne, 1996). The core components of the strategic management process are: (i) environmental analysis, (ii) goal formulation, (iii) strategy formulation, (iv) strategy evaluation, (v) strategy implementation, and (vi) strategic control (Alkhafaji, 1989; Carroll, 1996). This process is depicted in Figure 2-1. This generic model of the strategic management process is applied to the following discussion to frame the linkage between company decisionmaking and influences applied by the stakeholder environment.

The main external influences on strategy formulation are introduced through *analysis of the business environment*, or the strategic context. This is an assessment of the company's strengths, weaknesses, opportunities, and threats (SWOT analysis). Strengths are the internal capabilities of the company that help to promote the company's objectives in the competitive market. Weaknesses hinder the accomplishments of the organisational objectives. Opportunities are the external circumstances that provide the company with an extra opportunity to achieve or exceed its objectives. Threats are external forces that could adversely affect the company and prevent it from achieving its objectives. The SWOT analysis is a process of scanning, monitoring, forecasting, and assessing information on trends, events, and issues that are occurring in the stakeholder environment. This information includes social, ethical, and public issues along with economic, political, and technological factors. The results of this analysis are then fed into the strategic management process, as depicted in Figure 2-1.

The *goal and strategy formulation* components of this process address the establishment of the corporate mission and objectives or goals, and development of strategy and policies. The company's mission statement identifies the business lines in which the company is involved, and sets the company's boundaries for its operations. Formulation of the company's philosophy and policies defines the values and beliefs of the company that guide the behaviour of its members in all aspects of business activities. These may

be articulated in the form of an internal code of conduct, for example. Company policies provide guidelines that define (or constrain) the area within which objectives are established and strategies are determined, implemented, and controlled. Policies are usually formulated by executive managers and therefore reflect their beliefs, as well as the company mission statement.

**Figure 2-1 Generic Model of the Strategic Management Process**



(Adapted from Carroll, 1996, Figure 18-5, p. 644).

Determination of strategic objectives (expected business outcomes) is based upon the company’s mission, and is moulded by both internal and external factors. Performance objectives may be diverse, and include economic, social and environmental performance goals.

Determination of the company’s strategy(s) defines the method(s) by which the company will achieve its objectives. This may include establishment of alternative strategies by executive management in order to give the company some flexibility should the preferred strategies not prove to be appropriate. This strategic plan and its associated ‘tactical moves’ (e.g. public relations, lobbying activities, company alliances) are the measures aimed at gaining an advantage over competitors or strengthening the company’s capacity to defend market positions.

*Strategic implementation* is the means to fulfil the company's stated mission, and usually includes the use of programmes, budgets and procedures. The implementation process may cover the entire range of managerial activities including motivation, compensation, management appraisal, and controlled processes.

*Strategic evaluation and control* involve the analysis and evaluation of the strategy and its implementation measures to determine their effectiveness in meeting the corporate mission and objectives. Where deficiencies are identified, this component also provides for the identification and implementation of corrective measures.

Strategies may be developed at different levels within the company to address the specific needs of the business. For example, in order to address the diverse demands of conducting business in a range of geographic market places, it is often necessary for corporations to develop a number of strategies for each business unit. Carroll (1996) identified the following four levels of organisational strategy that are applicable to large businesses (like multinational petroleum companies):

- i) Enterprise or societal level strategy is the broadest, overarching level of strategy. Its focus is on the role of the company in society and within its industry sector. It is manifested by way of mission statements, codes of ethics, 'core values', public issues committees, and the definition of the public affairs function.
- ii) Corporate level strategies focus on the overall purpose and scope of the company. Formulation of these strategies may involve consideration of diversification and acquisition; how the company is to be run in structural and financial terms; and how resources are to be allocated to different operations around the world. All of these are influenced by the overall mission of the company.
- iii) Competitive or business unit strategies focus on how to compete successfully in a particular market. For example, how to achieve competitive advantage; what new opportunities can be identified or created in markets; which products or services should be developed in which markets; and the suitability of these products or services to meet customer needs and achieve the company's objectives.
- iv) Operational or functional strategies focus on how the components of the company (i.e. resources, processes, people, and their skills) are integrated to form a functional architecture that will effectively deliver the overall strategy.

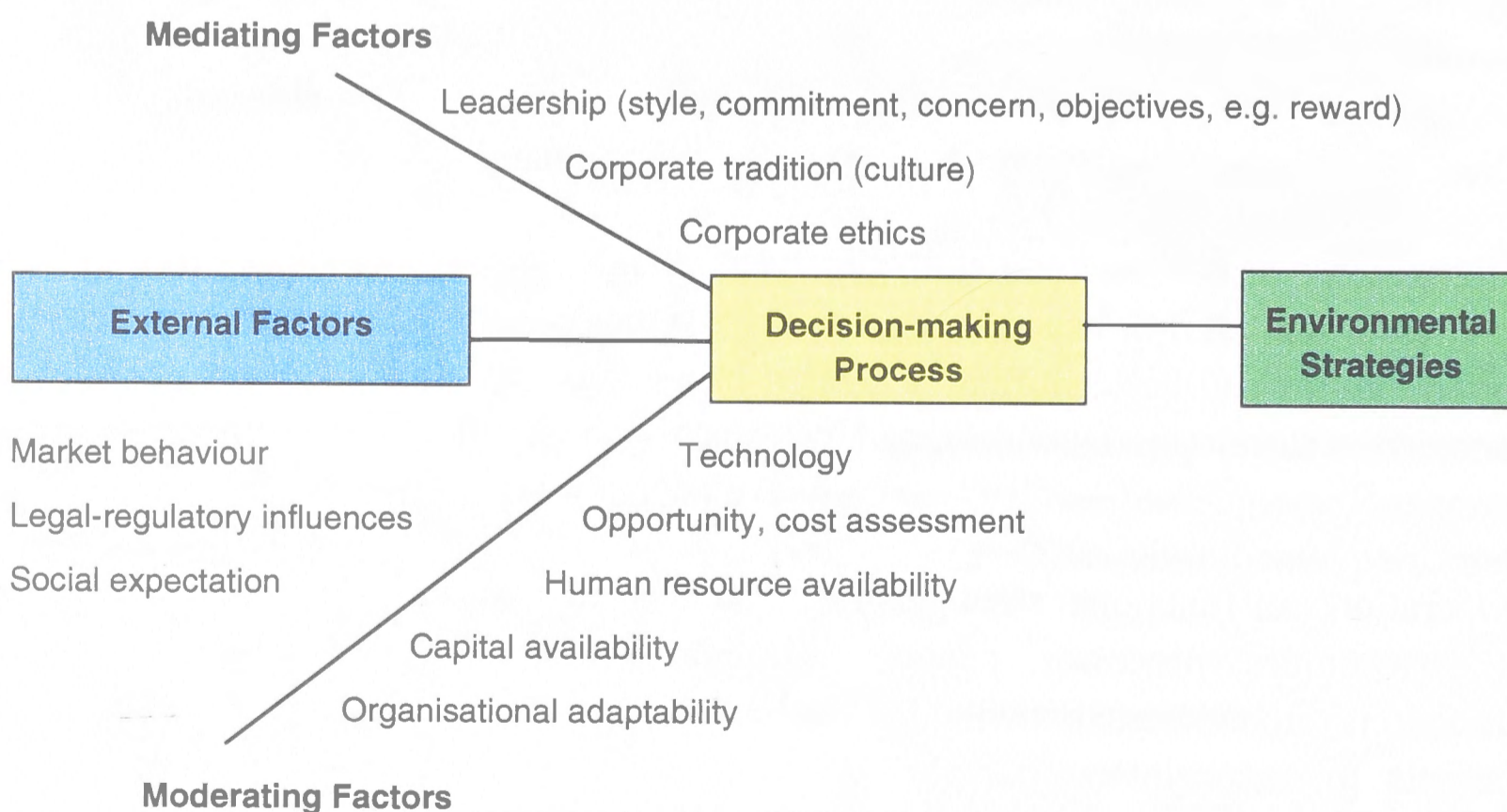
Various models have been developed by researchers to depict how companies develop corporate social and environmental management strategies, such as Shrivastava (1992)'s "*process of greening*" model.

Estrada *et al.* (1997) developed a step-wise process to specifically describe the way in which social and environmental issues are incorporated into the strategies of petroleum

companies. They segregated the socio-economic set-up (external and internal factors) into three overlapping areas in which petroleum companies operate, namely: (i) social acceptance of the company's activities (e.g. legitimacy); (ii) the regulatory framework (e.g. state regulations); and (iii) the market place (e.g. inter-fuel competition and competition between petroleum companies). They assume, for example, that social and environmental concerns can translate into political demands on government, which in turn affect the business framework of the industry. Once threats and opportunities have been assessed, the company will have to evaluate alternative strategies to handle perceived issues. In Estrada *et al.*'s model, the long-term development plan embodies activities like investments/divestments and organisational changes. The underlying assumption of their model is that the definition of these alternatives, the choice of strategy and its incorporation in a long-term development plan will depend on the company's structure, e.g. owners, assets, organisational style and degree of internationalisation.

Similarly, Ghobadian *et al.* (1998) have defined a relationship between decision-making processes and the development of strategic social and environmental policies, and how investment decisions flow on from these actions. Their approach defines three categories of behaviour-altering factors that can affect company strategies: (i) *external*; (ii) *mediating*; and (iii) *moderating*. These behaviour-altering factors are depicted in Figure 2-2.

**Figure 2-2 Interaction of External, Mediating and Moderating Factors**



(Source: Ghobadian *et al.*, 1998, Figure 2, p. 17)

All of these examples of strategic management models indicate that a company should assess the effects of demands exerted on the business by the external stakeholder environment. This involves identification of the company's stakeholders, and

determination of an approach to manage the relationship with stakeholders, so that their respective interests and goals are not irrevocably opposed to one another.

### 2.3 INFLUENCES OF THE STAKEHOLDER ENVIRONMENT

Analysis of the business environment (external and internal factors) is the process in which stakeholder expectations are identified, assessed, and addressed in the company's management strategies. Johnson and Scholes (1997) suggest that there are four core questions that guide the analysis of its business environment and formulation of management strategies:

- i) Whom should the company be there to serve and how should the direction and purposes of a company be determined? This is the province of *corporate governance*, which relates not only to the power to influence purposes, but also to the processes of supervising executive decisions/actions and the issues of accountability and the regulatory framework within which companies operate.
- ii) Whom does the company actually serve in practice? This is addressed through the concept of *organisational stakeholders* and the extent to which they are interested in and/or able to influence the company's purposes.
- iii) Which purposes should a company fulfil? This issue is influenced by ethical considerations. At the broadest level, these issues impinge on corporate governance—particularly in relation to the accountability of companies. The ethical agenda is also strongly culturally driven and is concerned with *corporate social and environmental responsibility* to the various stakeholders—particularly those with little formal power (such as the community at large). It is also concerned with the ethical standards and behaviour of individuals within companies. Businesses' responsibility to be ethical is the obligation to do what is right, just, and fair and to avoid or minimise harm to stakeholders.
- iv) Which purposes are actually prioritised above others? In addition to the abovementioned considerations, this issue is also related to a variety of factors in the *cultural context* in which the company is operating. These include the broader issues of national cultures through to important reference groups, such as professional groups/bodies, to the subcultures within a company.

Each of these influences is discussed in the following sections.

### 2.3.1 Corporate Governance

Corporate governance is the system of rules and practices by which organisations are directed and controlled. It is a “*direct outgrowth*” of the paradigm of legitimacy<sup>1</sup>. That is, for a business to be legitimate and maintain its legitimacy in the view of society, its governance must correspond to the will of its stakeholders (Carroll, 1996). Corporate governance has emerged as an important theme in the external control of corporations in many countries. It is recognised that reliance upon command and control regulatory processes to control the performance of companies and the interests of its stakeholders is not practical—governments cannot afford the resources to police compliance with the regulations. Companies commonly object to ‘over-regulation’ which they claim interferes with their primary objective—to make profits. The intent of corporate governance is therefore to force corporations “*to take into account the non-economic interests of workers, consumers, and the general public*” (Parkinson, 1995).

*“The governance role is not concerned with running the business of the company per se, but with directors giving overall direction to the enterprise, with overseeing and controlling the executive actions of the management and with satisfying legitimate expectations for accountability and regulation by interest beyond the corporate boundaries”* (Sheikh and Chatterjee, 1995, p.6).

Corporate governance requirements are defined by the regulatory regime within which companies operate, and may vary considerably between jurisdictions. Corporate control mechanisms defined by corporate governance systems can include: (i) legislation under “companies acts”, that may contain certain safeguards for the protection of shareholders and creditors; (ii) the common law duty of directors to act with reasonable care and skill; (iii) civil liability of directors for breaches of their fiduciary duties; and (iv) self-regulation demands, such as compliance with Codes of Conduct (Sheikh and Chatterjee, 1995; Sheikh and Rees, 1995).

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<sup>1</sup>“*Legitimacy is a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions*” (Suchman, 1995, p. 574). From the company perspective, Carroll (1996, p. 592) defines legitimacy as “*a condition that prevails when there is a congruence between the company’s activities and society’s expectations. Legitimation is a dynamic process by which business seeks to perpetuate its acceptance. The dynamic process aspect should be emphasised because society’s norms and values change, and business must change if its legitimacy is to continue.*” Gray *et al.* (1996) suggest that legitimacy theory has two variants in this context: the legitimacy of individual companies (referred to by Carroll (1996) as the micro level), and the legitimacy of the system as a whole (referred to by Carroll (1996) as the macro or business institution level). For example, the first variant may involve challenging the ongoing operational legitimacy of a petroleum company that is involved in a major oil spill. The second variant may involve challenging the legitimacy of the petroleum industry to continue to exist, given the issues of non-renewable resource depletion and greenhouse gas emissions.

Strong cultural influences have resulted in different traditions and frameworks in different countries (Johnson and Scholes, 1997). The concept of directors' liabilities, for example, has become particularly important in the enforcement of environmental, health and safety laws in developed nations like the United Kingdom (UK), the United States of America (US), Canada, Australia and New Zealand.

Some stock exchanges have also introduced compulsory environmental reporting requirements in their company listing rules. Public companies listed on US stock exchanges are obliged to disclose both their US and foreign environmental liabilities. A notification on information disclosure requirements, issued by the US Securities and Exchange Commission (SEC) in 1989, includes an obligation for listed companies to disclose existing and potential environmental liabilities. The SEC's disclosure requirements apply to both foreign operations and subsidiaries of reporting US companies that may have a material effect upon the corporation as a whole<sup>2</sup>. The Australian Stock Exchange and the Stock Exchange of Thailand also have disclosure rules that require listed companies to report environmental liabilities in share proposals, offering circulars, etc.

The influence of corporate governance obligations on company performance will depend upon the company's home country and host country rules.

### **2.3.2 Stakeholder Claims**

The corporate governance framework within which companies operate provides an indication of how the company should define its stakeholders. Namely, whether the company is legally obliged to consider the interests of just its shareholders, employees and customers, or a broader group of stakeholders. However, the community's perception of industry's stakeholders does not always equate with the definition provided by the corporate governance rules of the jurisdiction. Identification of the company's stakeholders, their claims and their rights (economic, legal, ethical, and philanthropic) can pose a managerial dilemma as to who should be regarded as a stakeholder.

Stakeholder theory and the related concept of 'stakeholder salience' provides some insight to explain how managers identify stakeholders and perceive stakeholder claims. Stakeholder theory has been described as

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<sup>2</sup> The SEC has also demonstrated its intention to bring major environmental disclosure enforcement actions. This responsibility was tested and proven by the Caterpillar Inc. case (*In the Matter of Caterpillar, Inc.*, Rel. No. 34-30532 March 31, 1992, cited by Nelson and Maiden, 1995).

*“an explicitly systems-based view of the organisation and its environment which recognises the dynamic and complex nature of the interplay between them”* (Gray *et al.*, 1996, p. 45).

‘Stakeholder salience’ describes *“the degree to which managers give priority to competing stakeholder claims”* (Mitchell *et al.*, 1997, p. 854).

There are essentially three recognised variants of stakeholder theory. The first variant is the *organisation-centred framework*, also known as ‘managerial view’ (Freeman, 1984), or ‘strategic approach’ (Goodpaster, 1991). In this model, stakeholders are narrowly defined as *“any human agency that can be influenced by, or can itself influence, the activities of the organisation in question”* (Gray *et al.*, 1996, p. 45).

Stakeholders are identified by the extent to which the company believes the involvement with each stakeholder needs to be managed in order to further the interests of the company, such as pursuing profits for the company’s shareholders. Acknowledgment of stakeholder claims is narrowly based on the company’s perception of their *legitimacy*. Certain individuals and groups have legitimacy in the eyes of management, i.e. they have legitimate interest in, or claim on, the operations of the company (Carroll, 1996). Stakeholders are also viewed as instruments that may use their legitimacy to facilitate or impede the company’s pursuit of its strategic objectives. For example, managers might take stakeholders into account because offended stakeholders might resist or retaliate (e.g. through political action, protest, or boycott).

In essence, this narrow view is based on the practical need for managers to optimise use of their limited time and resources, necessitating the ability to define relevant stakeholder groups in terms of their direct relationship to the organisation’s core economic interests or moral claims. The more important the stakeholder is to the company, the more effort will be exerted in managing that relationship (Gray *et al.*, 1996).

The second variant of stakeholder theory is the *organisation-stakeholder interplay*, also known as the ‘stakeholder view’ of the company (Freeman, 1984), or the ‘multifiduciary approach’ (Goodpaster, 1991). It is a socially grounded variant that involves responsibility and accountability (Gray *et al.*, 1996). This broad view of stakeholders holds that management has a fiduciary responsibility to all of its stakeholders, and that stakeholders are to be accorded a comparable standing with company shareholders.

In this variant, *“a stakeholder in an organisation is any group or individual who can affect or is affected by the achievement of the organisation’s objectives”* (Freeman, 1984). Company managers define their stakeholders as not only those groups that management believes have some stake in the company, but also those parties that themselves believe they have a stake in the company (Carroll, 1996).



The focus of this view of stakeholders is their *power*<sup>3</sup> base (Mitchell *et al.*, 1997). Power is a key indicator of the potential influence of stakeholders in relation to a critical operational issue or formulation and implementation of a particular business strategy. As observed by Hardy and Phillips (1998, p. 227),

*“The ability to participate in domain development and to define the problems that characterise it, depends either on having the power to make oneself heard or on the goodwill of powerful domain members to allow low-power participants to participate.”*

This definition leaves the notion of stake and the field of possible stakeholders open to include virtually anyone—only those who cannot affect the organisation (have no power) and are not affected by it (have no claim or relationship) are excluded from having a stake (Mitchell, *et al.*, 1997). These stakeholders may or may not have legitimate claims, but they nevertheless may be able to affect, or are affected by, the organisation, and thus can affect the interests of those who do have legitimate claims. Stakeholders in a company may therefore be numerous and diverse, and include employees, communities, special interest groups, society, the State, customers, suppliers, competitors, local government, stock markets (shareholders), industry bodies, foreign governments, future generations, and custodians of the natural environment.

The third variant, the *stakeholder synthesis* approach, represents the middle ground. This view holds that companies have moral responsibilities to stakeholders, but that they should not be seen as part of a fiduciary obligation. This approach evolved in recognition of the need to have a practical balance.

*“The broad concept of stakeholder management must be better defined in order to serve the narrower interests of legitimate stakeholders. Otherwise, influencing groups with power over the firm can disrupt operations so severely that legitimate claims cannot be met and the firm may not survive”* (Mitchell *et al.*, 1997, p. 863).

In this variant, management’s basic fiduciary responsibility to company shareholders is kept intact, but it is also expected to be implemented within the context of ethical responsibility. That is, companies should be managing strategically and morally at the same time.

Assessment of stakeholders to determine their overall influence in regard to a particular issue may be performed by what is termed ‘stakeholder mapping’, whereby individuals or groups of stakeholders are categorised according to the attributes they are perceived to possess. There are several approaches to stakeholder mapping. For example, stakeholders may be mapped according to their legitimacy—primary stakeholders are

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<sup>3</sup> *Power* is defined as the extent to which individuals or groups are able to persuade, induce or coerce others into following certain courses of action (Johnson and Scholes, 1997).

defined as those that have formal, official, or contractual relationships with the company, and all others are classified as secondary stakeholders.

Another approach is to focus on linking stakeholder power and their interests by developing power/interest matrices (Mendelow, 1991; Savage *et al.*, 1991). The situational power dynamics will influence the strategies of engagement adopted by companies and their stakeholders. The development of specific stakeholder management strategies may be based on a classification of stakeholders according to the concepts of the potential for cooperation/level of interest and threat/power. High power—low interest stakeholders are viewed as “*supportive*”; low power—low interest stakeholders are considered “*marginal*”; high power—low interest stakeholders are regarded as “*non-supportive*”; and high power—high interest are viewed as “*mixed blessings*”.

Hardy and Phillips (1998) have advanced this concept by developing a framework that highlights three aspects of power: (i) formal authority; (ii) the control of critical resources; and (iii) discursive legitimacy. They suggest that by “*asking who has formal authority, who controls key resources, and who is able to manage legitimacy discursively, we can also identify various power dynamics.*” In this context, formal authority is defined as

*“the recognised, legitimate right to make a decision. In an interorganisational domain, such power might rest with one particular organisation, such as the government; it might be shared between organisations as in a joint venture; it may rest with a convener; or it may be dispersed”* (Hardy and Phillips, 1998, p. 219).

Scarce or critical resources, such as expertise, money, equipment, and information are sources of power when one organisation or group relies on another for that resource, thereby placing the dependent organisation at a relative power disadvantage.

The third aspect of power, in this framework, is *discursive legitimacy*. For example, in the case of the *Brent Spar* disposal proposal, environmental groups like Greenpeace were able to affect public understanding, attract media attention, and pressure the government, because they were perceived to be legitimately speaking on behalf of the environment. As was evident in that example, discursive legitimacy may afford such organisations more influence than resource-rich corporations or formal decision makers whose self-interest is more obvious.

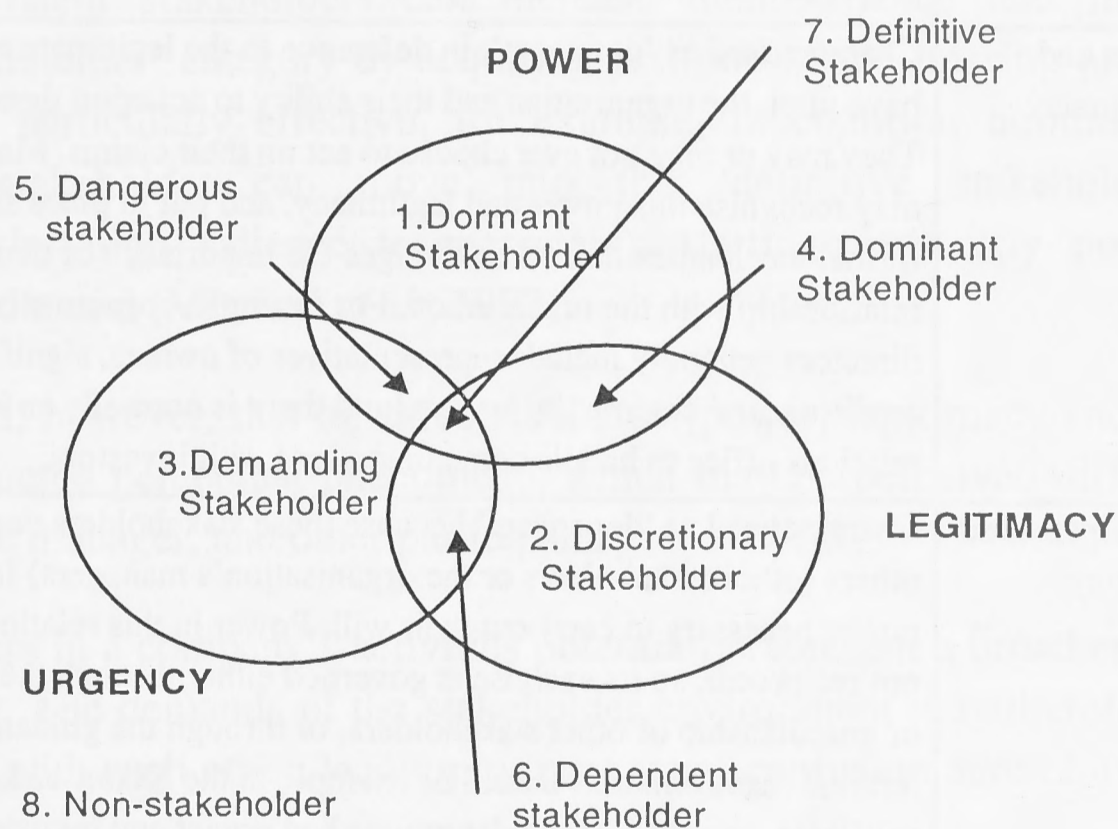
The *Brent Spar* incident highlighted another important consideration in stakeholder mapping—the element of *urgency*. Urgency is defined by Mitchell *et al.* (1997, p. 867) “*as the degree to which stakeholder claims call for immediate attention*”. Its degree of influence is contingent upon the existence of two conditions: (i) time sensitivity—the degree to which managerial delay in attending to the claim or relationship is unacceptable to the stakeholder; and (ii) criticality—the importance of the claim or the relationship to the stakeholder. Stakeholders can quickly change their status with a

change of circumstances. This can occur with the media or special-interest groups when the urgency of a claim (as in a boycott or demonstration) takes precedence over the power of that claim.

*“In today’s business environment, the media have the power to instantaneously transform a stakeholder’s status with coverage on the evening news”* (Carroll, 1996, p. 77).

Urgency, like power and legitimacy, is not a steady-state attribute, but can vary across stakeholder-manager relationships or within a single relationship across time. Mitchell *et al.* (1997) therefore suggest that stakeholder mapping should consider *power* and *legitimacy* in the context of *urgency*, to give the model a dynamic dimension. They have identified seven types of stakeholder that emerge from mapping various combinations of the attributes power, legitimacy, and urgency. Three possess only one attribute, three possess two attributes, and one possesses all three attributes, as depicted in Figure 2-3.

**Figure 2-3 Stakeholder Typology**



(Source: Mitchell *et al.*, 1997, Figure 2, p. 874).

The low salience classes, represented by types 1, 2 and 3 (dormant, discretionary, and demanding stakeholders), are identified by their possession or attributed possession of only one of the attributes. Mitchell *et al.* (1997) refer to them as *latent* stakeholders. The moderately salient stakeholders represented by types 4, 5 and 6 (dominant, dangerous and dependent stakeholders) are identified by their possession or attributed possession of two of the attributes, and are referred to as *expectant* stakeholders. The combination of all three attributes (including the dynamic relations among them) is the defining

feature of highly salient stakeholders (type 7), referred to as *definitive* stakeholders. Those individuals or entities possessing none of the attributes are non-stakeholders (type 8). The characteristics of stakeholder types 1-7 are summarised in Table 2-1.

**Table 2-1 Stakeholder Typology Characteristics**

Type	Attributes	Characteristics and Salience
1 Latent: Dormant	Power	Without a legitimate relationship or an urgent claim, their power remains unused. Dormant stakeholders have little or no interaction with the organisation. However, they have potential to acquire a second attribute and increase their saliency, so management should remain cognisant of such stakeholders.
2 Latent: Discretionary	Legitimacy	Without power and urgent claims, there is no pressure on managers to engage in an active relationship with such a stakeholder, although managers may choose to do so.
3 Latent: Demanding	Urgency	Demanding stakeholders are bothersome, but not warranting more than passing management attention, if any at all. Where stakeholders are unable or unwilling to acquire either the power or the legitimacy to increase their saliency, the 'noise' of urgency is insufficient to project a stakeholder claim beyond latency.
4 Expectant: Dominant	Power and Legitimacy	Characterised as 'dominant', in deference to the legitimate claims they have upon the organisation and their ability to act upon these claims. They may or may not ever choose to act on their claims. Managers may recognise this power and legitimacy, and put in place some formal mechanism that acknowledges the importance of their relationship with the organisation. For example, corporate boards of directors generally include representatives of owners, significant creditors, and community leaders, and there is normally an investor relations office to handle communications with investors.
5 Expectant: Dependent	Legitimacy and Urgency	Characterised as 'dependent' because these stakeholders depend upon others (other stakeholders or the organisation's managers) for the power necessary to carry out their will. Power in this relationship is not reciprocal, so its exercise is governed either through the advocacy or guardianship of other stakeholders, or through the guidance of internal management values. For example in the <i>Exxon Valdez</i> oil spill case, several stakeholder groups had urgent and legitimate claims, but they had little power or no power to enforce their will in the relationship. To satisfy their claims, these stakeholders had to rely on the advocacy of other, powerful stakeholders, or on the benevolence and voluntarism of the organisation's management.
6 Expectant: Dangerous	Power and Urgency	Lacking legitimacy, these stakeholders will be coercive and possibly violent, making the stakeholder literally 'dangerous' to the organisation. The actions of these stakeholders are not only outside the bounds of legitimacy, but are dangerous to both the stakeholder-manager relationship and to the individuals and entities involved, e.g. environmentalists spiking trees in areas to be logged.

Table 2-1 Stakeholder Typology Characteristics

Type	Attributes	Characteristics and Salience
7 Definitive	Power, Legitimacy and Urgency	The most common occurrence is likely to be the movement of a dominant stakeholder into the definitive category, e.g. actions by shareholders of a company to remove top management if they perceive that their legitimate interests (share values) are not being served by their actions. Any expectant stakeholder can become a definitive stakeholder by acquiring the missing attribute, e.g. dependent Alaskan citizens became definitive stakeholders of Exxon during the <i>Exxon Valdez</i> incident by acquiring a powerful ally in government. Managers have a clear and immediate mandate to attend to and give priority to a definitive stakeholder's claim.

Source: Compiled from characteristics identified by Mitchell *et al.* (1997).

In essence, those stakeholders that hold two or three of the key attributes are those expected to gain most attention and be engaged in some form of dialogue with managers, whereas latent stakeholders may not even be recognised by managers. Nevertheless, latent stakeholders can increase their salience and move into the 'expectant stakeholder' category by acquiring just one of the missing attributes. If the stakeholder is particularly effective, for example, in coalition building or political action, that stakeholder can move into the 'definitive stakeholder' category (characterised by high salience to managers), starting from any position—latent, expectant, or potential (Mitchell *et al.*, 1997).

It is recognised, however, that all three attributes (power, legitimacy and urgency) are socially constructed perceptual phenomena, which may be perceived differently by the stakeholder, the manager, and other participants.

The stakeholders in a company's activities potentially represent a broad cross-section of the community. The demands of the stakeholder environment may therefore be diverse and in conflict with each other, leading to managerial confusion about how the interests should be prioritised.

*"One major criticism relates to the complexity of identifying, assessing, and responding to stakeholder claims, which constitute an extremely difficult and time-consuming process. Also, the ranking of stakeholder claims is no easy task. Some managers continue to think in stockholder terms because this is easier. To think in stakeholder terms increases the complexity of decision making, and it is overly taxing for some managers to determine which stakeholders' claims take priority in a given situation"* Carroll (1996, p. 95).

Stakeholder saliency will therefore be determined on the basis of how managers perceive the stakeholder claims in relation to their potential influence on business continuity.

*“... although groups can be identified reliably as stakeholders based on their possession of power, legitimacy, and urgency in relationship to the firm, it is the firm’s managers who determine which stakeholders are salient and therefore will receive management attention; that is, one can identify a firm’s stakeholders based on attributes, but managers may or may not perceive the stakeholder field correctly. The stakeholders winning management’s attention will be only those the managers perceive to be highly salient”* (Mitchell *et al.*, 1997, p. 871).

Mitchell *et al.* (1997) suggest that managerial characteristics should, therefore, be regarded as a variable that may affect stakeholder salience. Managers vary greatly in their scanning practices (Daft *et al.*, 1988) and in their values (Hambrick and Mason, 1984). Greer and Downey (1982) have found that managers’ values relative to social regulation have a strong effect on how they react to stakeholder claims. Other researchers suggest that management’s sense of self-interest or self-sacrifice is also an important value in this relationship (Dawkins, 1976; Wilson, 1974; Granovetter, 1985; Perrow, 1986).

### 2.3.3 Summary

Corporate social and environmental responsibilities infer that companies should adopt a broad view of stakeholders. However, company managers are driven by commercial pressures that require them to prioritise their responses to stakeholder claims on the basis of their perceived influence on the business. The factors that may affect stakeholder salience include their legitimacy, power, urgency and the relevance of their claims as determined by the values systems of the company managers.

## 2.4 STRATEGY FORMULATION

There are several ways in which management strategies may be formulated, depending on internal factors (e.g. the structure of the company and the levels at which strategies are formulated, and the company culture(s)); and external factors (e.g. stakeholder influences on the company).

Company managers assess the environmental and social risks posed by internal and external factors through consideration of their: (i) legal requirements and liabilities; (ii) public perception; (iii) ability to reduce risks; (iv) ability to share risks with other parties; and (v) the amount of risk that they and their shareholders are prepared to accept.

Fischer and Schot (1997) suggest that strategies may, therefore, emerge as the product of one or more of the following influences:

- i) As a result of deliberate managerial intent. That is, through a planning process, or through the command of an influential individual (e.g. chief executive) or a small group (e.g. senior executives).
- ii) As the outcome of cultural and political processes in and around companies.
- iii) By imposition, for example by a parent holding company, or regulatory requirements.

#### **2.4.1 Strategy Formulation as Managerial Intent**

The formal approach to strategy development subscribes to the view that it should be the outcome of “*careful objective analyses and planning*”, managed through a sequence of steps. These steps involve objective setting, the analysis of environmental trends and resource capabilities, the evaluation of different options, and the planning for strategy implementation (Johnson and Scholes, 1997).

In the context of corporate environmental management, Gladwin (1993) refers to this purposive approach as “greening as strategic choice”.

[Organisational leaders] “*are seen to anticipate future threats and opportunities, engage in sound strategic analysis, set strategic objectives, and marshal, develop and dynamically allocate resources to implement strategy*” (Gladwin, 1993, pp. 51-52).

The apparent rigour behind formal planning may mislead observers to believe that management strategies have the full commitment and support of the companies. For instance, there is increasing social pressure, through quality management system standards (e.g. ISO 9000 series), environmental management systems standards (e.g. ISO 14000 series), and corporate annual reporting requirements, for companies to publicly declare their values, beliefs and purposes, through written mission statements and policy statements. Some external stakeholders have interpreted these statements as reliable indicators of the companies’ organisational culture. However, as cautioned by Johnson and Scholes (1997, pp. 217-8),

[These statements] “*are likely to be at best only partially accurate, and at worst misleading, descriptions of the real organisational culture. This is not to suggest that there is any organised deception. It is simply that the statements of values and beliefs are often statements of aspiration or strategic intent of a particular stakeholder (such as the chief executive officer), rather than accurate descriptions of the culture as it exists in the minds and hearts of people within and around the organisation.*”

From such observations, Johnson and Scholes (1997) conclude that there are “*dangers in the formalisation of strategic planning*”:

- i) Strategies are more or less successfully implemented through people. Their behaviour will not be determined by plans. So the cultural and political dimensions of companies have to be taken into account. Planning processes are not typically designed to do this.
- ii) The strategy resulting from deliberations of a corporate planning department, or a senior management team, may not be owned more widely in the company.
- iii) The managers responsible for the implementation of strategies, usually line managers, may be so busy with day-to-day operations of the business that they cede responsibility for strategic issues to specialists. However, the specialists do not have power in the company to make things happen. The result can be that strategic planning becomes an intellectual exercise removed from the reality of operation.
- iv) The process of strategic planning may be so cumbersome that individuals or groups in the company might contribute to only part of it and not understand the whole.
- v) Strategic planning can become concentrated on detail, which, while sound in itself, may miss the major strategic issues facing the company.
- vi) Planning can become obsessed with the search for absolute determinants of performance—a set of economic indicators, for example—or a definitively right strategy. It might be more important to establish a more generalised strategic direction within which there is flexibility.

#### **2.4.2 Strategy Formulation Through Cultural and Political Processes**

Johnson and Scholes (1997, pp. 24-25) suggest that strategic management and strategy development can also be viewed

*“as a process of crafting—strategic management is seen not as a formal planning process, but rather in terms of processes by which strategies develop in companies on the basis of managers’ experience, their sensitivity to changes in their environments and what they learn from operating in their markets.”*

Recognition of stakeholder claims in the context of business objectives is influenced by the values systems of companies. Ethical choices are closely linked to the cultural context in which companies operate and the company’s own culture. Pfeffer (1997) suggests that control in companies is exercised through the company’s culture, and individual, interpersonal influence, in which those in roles of authority motivate and direct others to act in a preferred manner. This organisational paradigm has implications for how the company views itself, how it perceives the outside world, and the openness



of its management ranks to accepting ranging opinions from both inside and outside the company (Johnson and Scholes, 1997).

The origins of a company's culture are of importance in developing an understanding of how individual companies are structured, make decisions, and formulate and implement strategies. Within large companies there is typically more than one type of culture—subcultures exist. These subcultures may arise in a number of ways, for example under the influence of trade unions or specialist professions. The subcultures may also relate directly to the structure of the company. For example, as a result of differences between geographical divisions in a multinational company, or between functional groups such as finance, marketing, operations, and environment, health and safety (Johnson and Scholes, 1997).

Organisational culture is typically built up over time, from the accumulation of individual, group and organisational experiences, to form a 'taken-for-grantedness', which is passed on over time through the company or workgroups to its individuals (Alkhafaji, 1989; Johnson and Scholes, 1997). Johnson and Scholes (1997, p. 53) define 'organisational culture' as

*“the deeper level of basic assumptions and beliefs that are shared by members of an organisation, that operate unconsciously and define in a basic taken-for-granted fashion an organisation's view of itself and its environment.”*

In the context of corporate environmental management, this approach captures what Gladwin (1993) has described as “greening as organisational learning”. Empirical evidence suggests that the way in which senior managers within corporations interpret issues can influence the form of organisational response (Daft and Weick, 1984; Dutton and Dukerich, 1991; Isabella, 1990). In this respect whether environmental protection issues are perceived as a potential threat (Walley and Whitehead, 1994) or opportunity (Porter, 1991; Porter and van der Linde, 1995) can affect an organisation's strategic choices (Dutton and Duncan, 1987; Welford, 1996; Estrada *et al.*, 1997).

Johnson and Scholes (1997) observed that the more rational, planning view of strategy tends to be used most by senior executives, particularly chief executives. Whereas the cultural and political processes tend to be used most by managers below the level of the executive management to formulate business unit or operational level strategies. They suggest that this observation can be explained by the fact that it may be the chief executives who have developed procedures from a strategic perspective, whereas the functional managers are operating on a case-by-case basis, responding to issues as they arise.

Johnson and Scholes (1997) emphasise that organisational learning between various parts of the company is a necessity in the successful implementation of this approach to strategy formulation. Organisational learning refers to experience-based improvement in

organisational task performance, and is reflected in the improvement in performance of individual decision-makers whose learning comes to be encoded in what Argyris and Schön (1978) term “*organisational maps, memories and programs*”<sup>4</sup>.

Of particular importance is the sharing of learning experiences from the experimentation with new or modified approaches within divisions of the company, followed by the broader implementation of successful, proven approaches. The ‘Post-Altman model’ developed by Post and Altman (1992, 1994) links corporate greening to organisation learning. Post and Altman (1994) suggest that

*“effective responses to social concerns occur where managers have explicitly processed lessons learned from past experience”.*

The Post-Altman model identifies three phases of corporate greening: (i) adjustment (incremental in nature, and driven by regulatory and market pressures); (ii) adaptation (anticipating future trends, and partially driven by environmental values); and (iii) innovation (where environmental values are institutionalised in all parts of the company, and environmental performance is systematically measured).

Organisational learning (particularly deuterio-learning<sup>5</sup>) is critical for corporate greening, as environmental concerns affect all company operations and moves toward sustainable development require transformed business values (Neale, 1997). A frequently cited example of this process was the transformation in corporate policy that evolved within Royal Dutch/Shell during the course of the controversy over disposal of the *Brent Spar* oil storage facility (1995-1998).

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<sup>4</sup> Argyris and Schön (1978) suggest that organisational learning occurs when individuals, acting from their images and ‘maps’, detect a match or mismatch of outcome to expectation that confirms or contradicts the organisational theory-in-use. The correction process requires the individuals to detect the sources of error (i.e. errors in strategies and assumptions in the existing theory-in-use), and then develop new strategies, based on new assumptions in order to correct error. This is followed by evaluation of the new strategies and actions, once implemented. However, in order for organisational learning to occur, the individuals’ discoveries, inventions, and evaluations must be embedded in the organisational memory. That is, in the individual images and the shared maps or organisational theory-in-use from which individual members will subsequently act. If this encoding does not occur, individuals will have learned, but the company will not have done so.

<sup>5</sup> Organisational learning theory is commonly described in terms of ‘single-loop learning’, ‘double-loop learning’ and ‘deuterio-learning’ (Bateson, 1971). Deuterio-learning or second-order learning (Argyris and Schön, 1978) involves reflection on and inquiry into previous episodes of organisational learning, or failure to learn. “*They discover what they did that facilitated or inhibited learning, they invent new strategies for learning, they produce these strategies, and they evaluate and generalise what they have produced. The results become encoded in individual images and maps and are reflected in organisational learning practice*” (Argyris and Schön, 1978, p. 27).

The concept of organisational learning is inherently linked to the theory of organisations.<sup>6</sup> Argyris and Schön (1978, p. 9) suggest that

*“[t]he organisation needs to be seen not as a stable hierarchy, but as an adaptive, continually changing learning organisation ... Our organisations live in economic, political, and technological environments which are predictably unstable. The requirement for organisational learning is not an occasional, sporadic phenomenon, but is continuous and endemic to our society.”*

A ‘learning organisation’ is defined by Senge (1990, p. 14) as “an organisation that is continually expanding its capacity to create its future.” The establishment of a learning organisation is not easy task. Organisations are associations of individuals—it is the individuals who must learn in order for the organisation to learn, although individual learning does not guarantee organisational learning. A core learning dilemma for companies is that the best learning is gained from experience. Yet the most critical decisions made in companies have system-wide consequences that may extend over years or decades, so that those responsible for the decisions may not directly experience the consequences of those decisions, and therefore have no precedent from which to learn (Senge, 1990).

Argyris and Schön (1978) also note that organisational learning is not the prerogative of the organisation’s leader to learn for the organisation. In large and complex companies, leaders come and go, while the company largely maintains its integrity, and learns or fails to learn in ways that often may be largely unrelated to the incumbent leader.

Companies must also confront sectoral and internal barriers to learning associated with their culture(s). Within an industry sector, like the petroleum industry, there tends to develop a common view about organisational purposes and a ‘shared wisdom’ on how to develop and manage companies in that industry. Estrada *et al.* (1997) suggest that staff perceptions and attitudes directly influence the importance that a petroleum company gives to social and environmental issues. Attitudes are grounded in both the experiences common to the industry at large and the company’s own business culture (e.g. managerially driven or financially driven).

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<sup>6</sup> Argyris and Schön (1978, pp. 322-3) view organisations “as the instruments for the achievement of social purposes ... The organisation is itself a subject which is conceived as sentient, active, intelligent and purposeful. ... Organisations-as-agents are involved in the effort to achieve objectives by the judicious selection of appropriate means. The focus is upon the acquisition and application of knowledge useful for effective performance of the organisation’s tasks ... The salient elements are decisions, for it is through decision-making that knowledge is applied to the performance of organisational tasks. The organisation acts upon its environment through the decisions made by individuals in key roles”. As defined by Pfeffer (1997, p. 8), “organisations are ... a process of organising support sufficient to continue existence. Organisational survival receives focus as a goal because survival must be continually accomplished and is never automatic.”

Many industries also have trade or professional associations that reinforce these norms. Against this background, it may prove difficult for individual companies to step out of line from this 'industry recipe' without being labelled as mavericks or cowboys (Johnson and Scholes, 1997). While there is clearly an advantage to such cultural influences, in terms of maintaining minimum standards and consistency in operational processes, Johnson and Scholes, 1997, pp. 216-217) caution that

*"[t]he danger is that managers may not look beyond their industry in thinking through strategies for the future. They become victims of industry 'groupthink'<sup>7</sup> and do not see the lessons which can be learnt from outside their own industry".*

Within companies, managers are often faced "not with a continually changing learning organisation, but with resistance to change" (Johnson and Scholes, 1997, p. 452). This resistance to change may be the result of the company becoming trapped in its on paradigm and routines. Proactive management is required to "unfreeze" this paradigm.

### 2.4.3 Strategy Formulation by Imposition

In some companies, strategies are formulated in response to the demands of influential stakeholders, such as government regulators, or by imposition of directives under the command of senior executives. Substantial changes in the external business environment, such as major technological advances, regulatory shifts, upheavals in the socio-economic environment can lead to leaps in organisational evolution, as the company's leadership is forced to implement major shifts in strategy, power, structure, control, etc. in order for the company to survive.

Johnson and Scholes (1997, p. 358) caution that

*"It is important that, if strategies are selected in this way, they have some completeness and are workable in practice. ... A dangerous combination can be powerful visionary stakeholders who are able to dominate the processes of strategic choice, but who are badly informed about the practicalities of making strategies work."*

In the context of corporate social and environmental management, this approach captures what Gladwin (1993) has described as "greening as institutionalism", which suggests that

*"changes in the features of organisations (such as greening) are often introduced to make organisations more aligned with the changing norms and expectations of the institutional environment" (Gladwin, 1993, pp. 47-48).*

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<sup>7</sup> 'Groupthink' is "a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when members' strivings for unanimity override their motivation to realistically appraise alternative courses of action" (Janis, 1982, cited in Neale, 1997, p. 94).

Greening in this model is viewed as a process of normative conformity and/or external legitimation from which advantages may be derived, such as greater stability and predicability, enhanced legitimacy and status, greater ease of access to resources, greater invulnerability to questioning.

The influence of externally imposed pressures is also captured in what Gladwin (1993) has described as “greening as natural selection”. This view is based on population ecology theory, which suggests that

*“organisational survival is the result of external pressures that differentially select forms of retention in an organisation’s population”* (Hannan and Freeman 1977, 1984, 1989, cited by Gladwin, 1993, p. 49-50).

The focus of this theory is not individual companies, but the entire populations of organisations over time. Hence, the theory downplays the consequences of managerial discretion or action and suggests that organisational change is limited by

*“strong inertial pressures or constraints such as investment in plant, equipment, and specialised personnel; limits on the internal information received by decision makers; internal political constraints supportive of vested interests; and organisational history, which justifies past action and prevents consideration of alternative strategies. External pressures for stability include legal and economic barriers to entry into new areas of activity; constraints on the external information gathered by decision makers; legitimacy considerations; and the problems of collective rationality and the general equilibrium”* (Gladwin, 1993, p. 49).

According to this theory, the assumption of strong structural inertia implies that organisational change toward greening lags behind or fails to meet the external demands for greening. Organisational transformation toward greening may be adaptive in the long term, but difficult and disruptive in the short term, and therefore greening may occur as a result of selection and replacement (the creation and demise of companies and structures of companies) rather than as a result of organisational transformation.

*“Adaptation, in other words, will largely be determined from without, with the external environment selecting green organisations and allowing only those firms with appropriate green variations to survive”* (Gladwin, 1993, p. 50).

Characteristic of this approach, according to DiMaggio and Powell (1983), is the tendency of companies within an ‘organisational field’ (e.g. industry sector) to come to resemble one another over time in their structures and practices. Competitive pressures serve to eliminate those companies that deviate from the norm, and a variety of institutional pressures encourage the remaining companies to imitate their more successful rivals to enhance their legitimacy. These include coercive pressures, such as laws that compel conformity; mimetic pressures, by which companies model themselves on others to reduce uncertainty; and normative pressures involving authorisation or

legitimation of organisational practices by superordinate collectives, such as compliance with professional standards or guidelines (DiMaggio and Powell, 1983).

Of particular relevance to organisations like multinational petroleum companies, is the imposition of a particular business strategy, as a result of enforced direction or significant business constraints. For example, petroleum companies seeking to conduct exploration and production operations in most developing countries are required by host country regulations to form local alliances and enter into production sharing contracts with the state-owned oil companies. Similarly, an operating business unit within a multidivisional corporation may regard the overall corporate strategic direction of its parent as an enforced choice; or a subsidiary may have strategies imposed on it from corporate head office.

Business environment constraints can also place limits on strategy choice. Johnson and Scholes (1997, p. 62) cite the example of the petroleum industry, where

*“senior executives argue that they have to manage strategy for a commodity in a market dominated by raw material prices and availability, and that all they can do is to keep costs down, learn to be as good as possible at forecasting changes in that environment, and respond as rapidly as possible to such changes.”*

In situations where the influence of commodity price pressures company managers to take a minimalist approach to expenditure, this influence can act as a major constraint to adopting a committed, long-term approach to the process of greening.

According to Gladwin (1993), this punctuated equilibrium model<sup>8</sup> of organisational evolution suggests that only shallow corporate greening, managed by middle managers, is likely during periods of relative continuity of strategy (known as convergence periods).

Deeper greening, involving fundamental changes in core values, product and market strategies, and resource allocation, may depend on exposure to major social or environmental crises that threaten organisational survival. It may also arise by way of managerial imposition, if it is driven by a strong visionary. This approach may be appropriate where there is a perceived need to counterbalance the risk of strategic drift<sup>9</sup>,

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<sup>8</sup> Historical studies of organisations have shown that typically there are long periods of relative continuity during which established strategy remains unchanged or changes incrementally; and there are also periods of flux in which strategies change but in no clear direction. Transformational change, in which there is a fundamental change in strategic direction, does take place but is infrequent. This pattern has become known as ‘punctuated equilibrium’ (Johnson and Scholes, 1997).

<sup>9</sup> ‘Strategic drift’ is defined by Johnson and Scholes (1997) as the process in which an organisation’s strategy gradually moves away from addressing the forces at work in its environment, often as a result of organisation wanting to continue to work within a framework with which is it familiar and comfortable.

which is likely to occur because of the power of the paradigm of the company. For example, where a company's leaders or key stakeholders wish to introduce an impetus to the company to change its direction by pursuing transformational strategies or "*great leaps forward.*"

#### 2.4.4 Summary

Corporate social and environmental responsiveness, or 'greening', is described by Gladwin (1993) as a process that can occur via one or more of the following six paths: greening as institutionalisation; natural selection; strategic choice; transformational leadership; organisational evolution; and/or organisational learning. The first two greening processes essentially infer that companies do not take an active role in the greening process, rather they reactively adapt their strategies and performance to avoid losing their legitimacy. By contrast, the latter four theories of greening all involve an element of deliberate, proactive strategic direction setting. However, these paths are not discrete, and it is probable that some companies will proceed along one or more of the paths simultaneously.

Greening may involve very extensive organisational change, innovation, and entrepreneurship, as well as substantial administrative change—fundamental transformations of mission, structure, and political, cultural, and technical systems (Gladwin, 1993; Bhargava and Welford, 1996). It is apparent that company leadership plays an important role in this process.

Gladwin (1993, pp. 52-53) suggests that rapid proactive greening may be dependent on 'charismatic green leadership', defined

*"as the force of personality that induces a high degree of loyalty, commitment, and devotion to the leader; identification of people with the leader and the leader's mission; adoption of the leader's values, goals and behaviour; a sense of being inspired by the leader; a sense of self-esteem from relationships with the leader and the leader's mission; and high degree of trust in the leader and the correctness of the leader's beliefs"* (Daft, 1992, cited by Gladwin, 1993).

Followers, especially top management teams, are motivated by charismatic and inspired leaders to:

*"believe in the vision of corporate transformation, to recognise the need for revitalisation, to sign on for the new vision, and to help institutionalise a new organisational process"* (Daft 1992, cited by Gladwin, 1993).

## 2.5 LEGITIMATION

Company managers are constantly faced with demands from stakeholders whose collective claims may be broad ranging and sometimes in conflict. While stakeholders exert their legitimacy to make claims on companies, they are also challenging the legitimacy of those companies. In response, companies strive to preserve their legitimacy. They may do so for many reasons, but Suchman (1995, p. 574) suggests that perceptions of the importance, difficulty, and effectiveness of legitimation efforts are linked to two key dimensions: “*the distinction between pursuing continuity and pursuing credibility*”, and “*the distinction between seeking passive support and seeking active support*”. The reason for seeking legitimacy will thus influence the way in which companies actively seek to gain and/or maintain their legitimacy.

### 2.5.1 Strategies

In order to manage the level of uncertainty associated with challenges to company legitimacy, managers must devise appropriate legitimation strategies, within the context of the company’s social and environmental responsibilities and business objectives. A company may seek legitimacy in several ways. For example, it may adapt its methods of operating to conform to what it perceives to be the prevailing standards. Alternatively, it may try to change the public’s values and norms to conform with its own practices by advertising and other techniques; or it may attempt to enhance its legitimacy by identifying itself with other companies, persons, values, or symbols that have a powerful legitimate base in society (Epstein and Votaw, 1978; Lindblom, 1994).

For example, in the case of a failure of a petroleum company’s performance, resulting in a serious accident or a major pollution incident, the company may seek to: (i) ‘educate’ its stakeholders about the company’s intentions to improve that performance; (ii) change the stakeholders’ perceptions of the event (but without changing the company’s actual performance); (iii) distract (i.e. manipulate) attention away from the issue of concern (concentrate on some positive activity not necessarily related to the failure itself); or (iv) change external expectations about its performance.

Fischer and Schot (1993) observed that direction setting in corporate environmental management strategies typically involves implementation of an approach that is essentially either ‘defensive’ or ‘innovative’. Companies that take a defensive strategy regard environmental concerns as external problems and restrictions on company operations. Environmental concerns are not integrated in the overall business strategy, or in research and development and marketing policies. These companies do not try to identify possibilities to excel in environmental protection to gain a competitive position. A *defensive environmental strategy* implies that companies do their best to comply with regulations and react to public pressures. For example, they may make substantial



investments in end-of-pipe technologies to achieve required emissions and waste reductions.

By comparison, an *innovative environmental strategy* is centred on a company's pursuit of its own policy to minimise the environmental impact of its operations; such as through substantial reductions in waste and emissions, often beyond the requirements of government regulations. A company's implementation of an innovative or proactive strategy is based on the expectation that environmental excellence is necessary to secure continuity and could lead to competitive advantages. This approach implies that efforts will be made to improve the company's structural ability to innovate and to develop new, environmentally friendly products and processes (Fischer and Schot, 1993).

Both defensive and innovative forms of strategic direction setting involve an intentional assessment by management, of the perceived nature and levels of business risk associated with their activities. Van den Bosch and van Riel (1998) observed that top-level managers are a key determinant in the choice between adoption of a 'bridging' or 'buffering' environmental strategy.

Regardless of the legitimation approach that is chosen, all involve a need for companies to engage their stakeholders in some manner.

### **2.5.2 Stakeholder Engagement**

From their research and empirical studies, Hardy and Phillips (1998) have identified four strategies of stakeholder engagement—*collaboration*, *compliance*, *contention*, and *contestation*; and four countervailing strategies that may be implemented either to defend the interorganisational domain from change, or to influence the direction that change takes—*reciprocal collaboration*, *regulation*, *marginalisation*, and *cooptation*.

In this framework, *collaboration* is viewed as a mutual engagement strategy in which all parties voluntarily participate in a cooperative manner, invoking *reciprocal collaboration*. Collaboration is often seen as a means of reducing uncertainty, acquiring resources, and solving problems (Chen *et al.*, 1998; Hardy and Phillips, 1998). Research on cooperation within work groups, has identified four interaction dimensions associated with a cooperative goal relationship: (i) exchanging and combining information, ideas, and other resources; (ii) giving assistance; (iii) discussing problems and conflicts constructively; and (iv) supporting and encouraging each other.

Neale (1997) suggests that in this mode, organisational learning promotes innovative ideas and there is an ability to mobilise and sustain a coalition of interests that can translate the visions into reality. Challenging stakeholders may be able to 'participate' in modification of the social interorganisational domain by collaborating with other stakeholders to collectively improve the saliency of their claim.

However, it cannot always be assumed that stakeholders collaborate voluntarily, sharing common goals and equal power. While an acknowledged mutual dependency may bring participants together in a collaborative manner to solve a common problem, it can also provide an incentive to a participant organisation to negotiate with others, in order to derive a solution which is most favourable to itself, rather than to all of the participants (Boons, 1998; Chen *et al.*, 1998). The structure of a co-operative partnership often favours certain participants over others, and thus the solution that is developed is not the socially optimal result of a collective 'learning process', but instead is a negotiated compromise reflecting the balance of power between participants (Boons, 1998).

Knights *et al.* (1993) have noted that issues such as exploitation, repression, unfairness, and asymmetrical power relations have an influence on collaborative arrangements, particularly when partners have different goals, values and beliefs (Waddock, 1989) and when the distribution of power between them is unequal (Gray and Hay, 1986). For example, more powerful stakeholders may force collaboration on weaker players to control them; or they may cooperate with other powerful allies to prevent opponents from reconstituting the domain (Rose and Black, 1985; Hasenfeld and Cheslar, 1989).

*"Collaboration may mask moves by powerful organisations to protect their privileged positions and to disadvantage less powerful stakeholders: those who collaborate are coopted; those who do not are excluded"* (Hardy and Phillips, 1998, p. 218).

Collaboration and reciprocal collaboration may, however, be positive where there is a genuine willingness by companies to ally with others to achieve real change. The level of integration in cooperative ventures is related to the concept of dependency and dependency relationships between the stakeholders. According to Boons (1998), companies need access to both physical and social resources (such as legitimacy) in order to be able to attain their environmental goals, and may be dependent upon parties such as governmental agencies, environmental groups and the media to provide this access. Similarly, when a governmental agency decides to develop a policy plan to reduce industrial emissions, for example, the agency may depend upon industry to provide information and support in order to be able to develop rules that are enforceable. Dependency may thus exist in both directions and need not be symmetrical. An organisation can also be dependent indirectly, by being influenced by the actions of another organisation. For example, Greenpeace and other interest groups influenced Shell Expro's final proposal for disposal of the *Brent Spar*.

*Compliance* is a contrasting form of cooperation, where power is neither shared nor is participation, strictly speaking, voluntary. In this strategy, the dominant partner uses its power to *regulate* weaker parties that have no choice but to cooperate. This is the basis of relationships between regulators and companies in traditional command-and-control regulatory frameworks.

Contention and contestation are based on conflict rather than cooperation. In *contention*,

*“new entrants struggle to overturn existing domain parameters in order to make space for themselves and, in doing so, challenge dominant stakeholders. As new contenders, such organisations may not possess either formal authority or critical resources—if they did, they would probably already be active in the domain. They may, therefore use discursive legitimacy to secure a voice, which may both depend upon, and lead to, a substantial overhaul of existing domain parameters. We suggest that the likely response to such a threat is marginalisation, at least initially, when the new contender’s legitimacy is most vulnerable and tenuous. If the new contender is successful in establishing its legitimacy, the definition of the problem that frames the domain will change and its place within it will become more secure”* (Hardy and Phillips, 1998, p. 226).

In the case of *contestation*, a stakeholder challenges existing powerholders, but only within the limits of existing domain parameters, allowing it to maintain legitimacy in the eyes of quite different stakeholders. The phenomenon of corporate ‘groupthink’ may inadvertently fuel contestation. Company managers can become preoccupied with looking inward for strategies and not therefore be insensitive to the different perceptions that outsiders (consumers or environmental groups) may have of options favoured by the company. Different groups, with different understandings and interests often contest the natural environment, yet groupthink sees only the company’s own image of ‘its’ environment. This attitude may cause the company to become involved in confrontation with other stakeholders if the

*“company’s conviction that its actions are right may lead it to avoid the dialogue that would be needed to explore whether or not common ground can be established, and produce less damaging outcomes”* (Neale, 1997, p. 95).

In other situations, contestation may produce some concessions, but Hardy and Phillips (1998) believe that it incurs the risk of *cooptation* by powerholders.

### 2.5.3 Summary

Strategic choice of the terms of corporate responsiveness is a means of ensuring that companies maintain some control over the achieving their business aims and objectives. However, corporate culture and other internal influences may compromise the initial choice of stakeholder engagement strategy. For example, companies bound up in groupthink may exclude themselves from opportunities for collaborative advantage, if they fail to see the lessons which can be learnt from outside their own industry, such as through alliances with stakeholders. It appears that the ability of companies to maintain their legitimacy in a dynamic business environment will depend upon their capacity to be flexible and amenable to modifying their engagement strategies in response to the changing salience of stakeholder issues.

## 2.6 ANALYTICAL MODELS OF CORPORATE RESPONSIVENESS

Over the years, researchers in strategic management have developed various typological models to link corporate attitude to observed behaviour. The inference is that if we understand what 'category' a company belongs to, then we will be able to predict its behaviour and therefore know how to manage it, for example with regulatory measures to achieve socially desirable behaviour.

Models of strategic choice have traditionally implied that companies can be categorised according to the stand they take on social issues, essentially ranging from recalcitrant through to leading edge. For example, Miles and Snow (1978) categorised organisations into three basic types in terms of how they behave strategically, i.e. the 'defender', the 'prospector', or the 'analyser'. They developed this categorisation as a means of assessing the dominant culture of the organisation—that culture which will determine the strategic approach taken by the company. For example, they suggest that 'defender' cultures find change threatening and tend to favour strategies that provide continuity and security, and hence tend to apply a bureaucratic approach to management. In contrast, a 'prospector' culture thrives on change, favouring strategies of business line and/or market development using a more creative and flexible management style.

In regard to corporate environmental responsiveness, some researchers<sup>10</sup> have suggested that, over time in response to internal and external pressures, companies will move in a linear manner towards more proactive and environmentally responsible behaviour. They may migrate through one of more typological categories, with the ultimate aim of achieving environmental excellence.

These models, however, infer a commonality of incentives and circumstances that may not be uniformly applicable. Theoretical models designed to categorise the environmental policies of companies have often failed to recognise or accommodate the need for companies to be flexible and responsive to both the positive and negative challenges that arise in their business environment. Ghobadian *et al.* (1998) reviewed numerous existing categorisation and linear sequence models, in the context of their empirical research on corporate environmental strategies. From this review, together

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<sup>10</sup> An extensive literature on environmental responsiveness models has developed over the last 30 or so years, based on earlier models of social responsiveness (e.g. Davis and Blomstrom, 1975; Fischer, 1983; Keim, 1981; McAdam, 1973; Miles, 1987; Post, 1978; Sethi, 1975; Tombari, 1984; and Wilson, 1975). Essentially researchers in this field have attempted to categorise company strategies on the basis of their attitude towards environmental management (e.g. Ansoff, 1990; Beaumont, Pedersen and Whitaker, 1993; Simpson, 1991; Steger, 1993; and Vandermerwe and Oliff, 1990). Some researchers have developed models that infer that companies will progress in a linear manner to categories of increasing virtue, as they become more environmentally aware and responsible (e.g. James, 1992; Roome, 1992; Welford, 1994; and Welford, 1995).

with the findings of their survey of 78 of the top 200 UK grossing companies, they concluded that

*“... it is highly questionable whether organisations will necessarily, or inevitably, pursue a logical or incremental approach to environmental management. ... the strategic positioning of companies is determined by the interaction of a set of key external and internal influences and constraints, the relationship between which often produces strategic policy positions which appear not to conform to the behavioural archetypes established by linear sequential models. This suggests that such models may not allow the full impact of the reality of business necessity to be recognised”* (Ghobadian *et al.*, 1998, p.13).

Ghobadian *et al.* (1998) concluded that there are three areas where *“the prevailing linear approach to environmental policy is based upon underlying assumptions which are not defensible”*.

Firstly, linear models imply companies will move along the continuum automatically over time. Although some models acknowledge that companies can move backwards, if they do not maintain levels of dedication and commitment, the underlying implication of linear models is that once the process has begun, a central rationale will propel the company forward, along what is essentially an incremental path, leading to environmental excellence as the eventual goal. Ghobadian *et al.* (1998)'s survey data show that these assumptions do not inevitably hold true—the need to address the specific requirements set by a customer regularly took precedence over a company's formal environmental policy, and companies qualified their support for environmental programmes, principally in favour of customer demands.

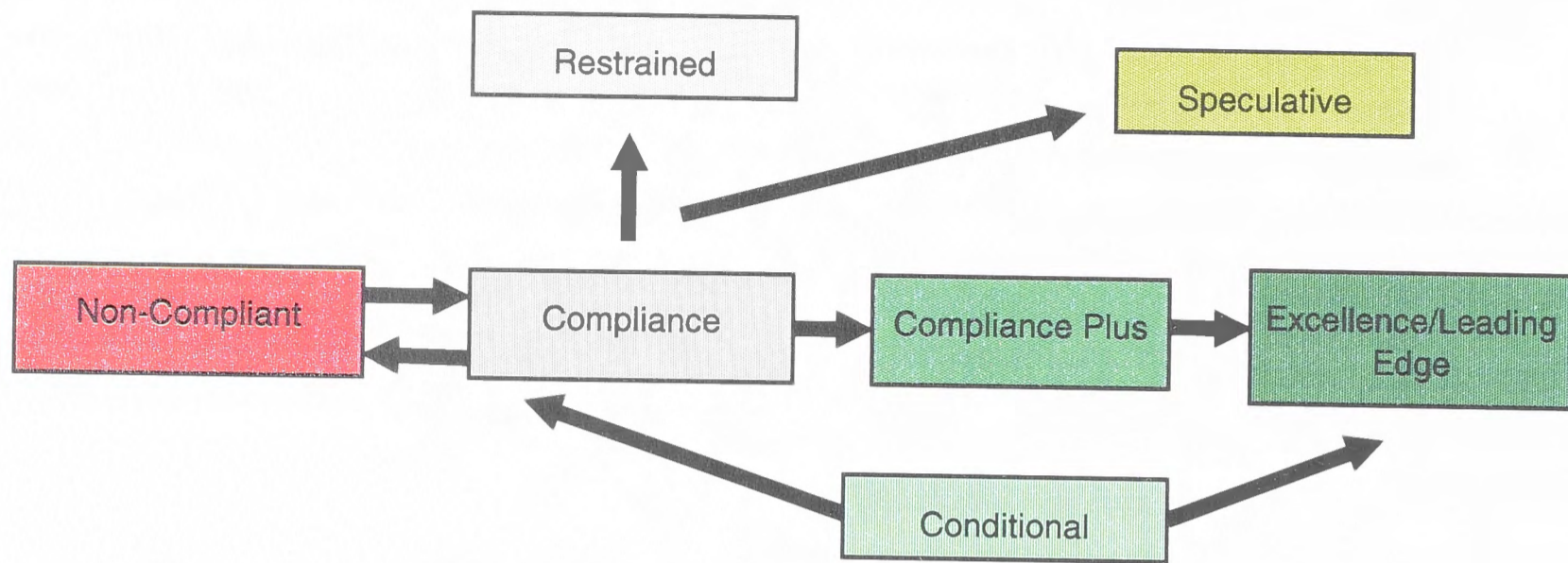
Secondly, the understanding of linear models is that the process will be sequential and that companies will have to spend time at various milestones along the way to the eventual destination of environmental excellence. Whereas, Ghobadian *et al.* (1998) argue that, given the external inducements and appropriate behavioural mediating and moderating factors, it is reasonable to assume companies are able to move from any position to any other position.

Thirdly, linear models can only reflect an overall attitude of a company on a particular issue, without showing the complexity of factors contributing to that position, or any temporal influences. Whereas, the question that drives many short-term company decisions is ‘what are the strongest influences at work on our operations here and now?’

Ghobadian *et al.* (1998) sought to overcome the shortcomings of the linear models through a non-sequential approach to model companies' decision-making processes and the development of strategic environmental policies, and hence the investment decisions that follow on from these actions. Their model is depicted in Figure 2-4. It is based on

the linear model of Roome (1992), with the additions of ‘restrained’, ‘speculative’ and ‘conditional’ commitment categories.

Figure 2-4 The Adapted Non-Linear Progression



(Source: Ghobadian *et al.*, 1998, Figure 3, p. 20)

Restrained companies are perceived to be separate from the continuum (Figure 2-4), as they have no real incentive to advance towards a position of excellence.

*“The restrained company may, if circumstances shift and real pressures develop, find itself having to develop active policies to meet its previously espoused environmental commitments. The restrained position is therefore a delicate one for a company to hold—they must be sure that the need to prove commitment does not arise, or that they have the capability to develop a position to match their commitment in the short term. Restrained companies are therefore expected to have well-developed contingency plans. The determination of contingencies rests with the perception of the mediating actors, based upon their perception of likely moves in external factors, and the potential offered by the company’s moderating factors”* (Ghobadian *et al.*, 1998, p. 20).

The speculative-commitment company is depicted in Figure 2-4 as being part of the continuum, but taking what may be seen as a fast track approach to achieving environmental excellence. However, in reality such excellence cannot be achieved in the short-term, and therefore Ghobadian *et al.* (1998, p. 21) argue that *“commitment of this type may be cosmetic, and more achievable in industry situations where little effort is required in order to achieve the appearance of change.”*

The conditional commitment company is represented in Figure 2-4 as being outside the continuum because, due to its multi-site nature and pragmatic approach, the underlying logic of the continuum does not appear to apply. The company may not adopt any of the positions within the continuum, dependent upon the dominant conditions under which it operates. Ghobadian *et al.* (1998) suggest that companies can exhibit different attitudes in different circumstances, and that such behaviour is entirely consistent with the proper operation of a company.

The particular appeal of Ghobadian *et al.* (1998)'s model, when compared with its predecessors, is that it acknowledges the real-life demands on business to meet practical operational considerations, and that as a consequence, there may often be substantial discrepancies between espoused policies and operational reality (espoused theory versus theory-in-use)<sup>11</sup>. Observations of these discrepancies can be used to tell us more about how company decision-making processes function in reality.

## 2.7 SYNTHESIS

The theoretical concepts and models reviewed in this chapter suggest that the extent to which companies engage in social and environmental responsiveness, or greening, will be dictated by a complex web of competing internal and external influences, that have spatial (e.g. geographic) and temporal (e.g. short-run versus long-run) dimensions.

Stakeholders play an important role in influencing the stance companies take on social and environmental issues. However, company managers often cannot attend to all stakeholder demands, so they must adopt some way to prioritise the claims and their consideration of claimants. This is achieved by assessing stakeholder salience, that is, the influence that stakeholders can exert and the degree of threat (risk) they pose to business continuity. The strategies of stakeholder engagement chosen by companies may be deliberate or reactive in response to challenges imposed by highly salient stakeholders.

Regardless of whatever path(s) companies follow to develop their management strategies, the strategies are likely to be subject to on-going evaluation and change in response to internal and external influences. The business environment in which petroleum companies operate, for example, is highly dynamic and therefore in order for companies to survive, they need to frequently re-evaluate their corporate strategies to determine what best suits the current market place.

For instance, social pressures may emerge unexpectedly, as occurred in the *Brent Spar* disposal controversy, and prompt company managers to change their strategies to minimise associated business risks. As observed by Gladwin (1993):

*“While some part of greening must surely arise from intentional strategic behaviour, the processes of organisational choice are likely to be affected by considerable ambiguity, incrementalism, and bounded rationality”.*

It is concluded that the influences on corporate social and environmental responsiveness can be described using a model that integrates aspects of the theories of strategic

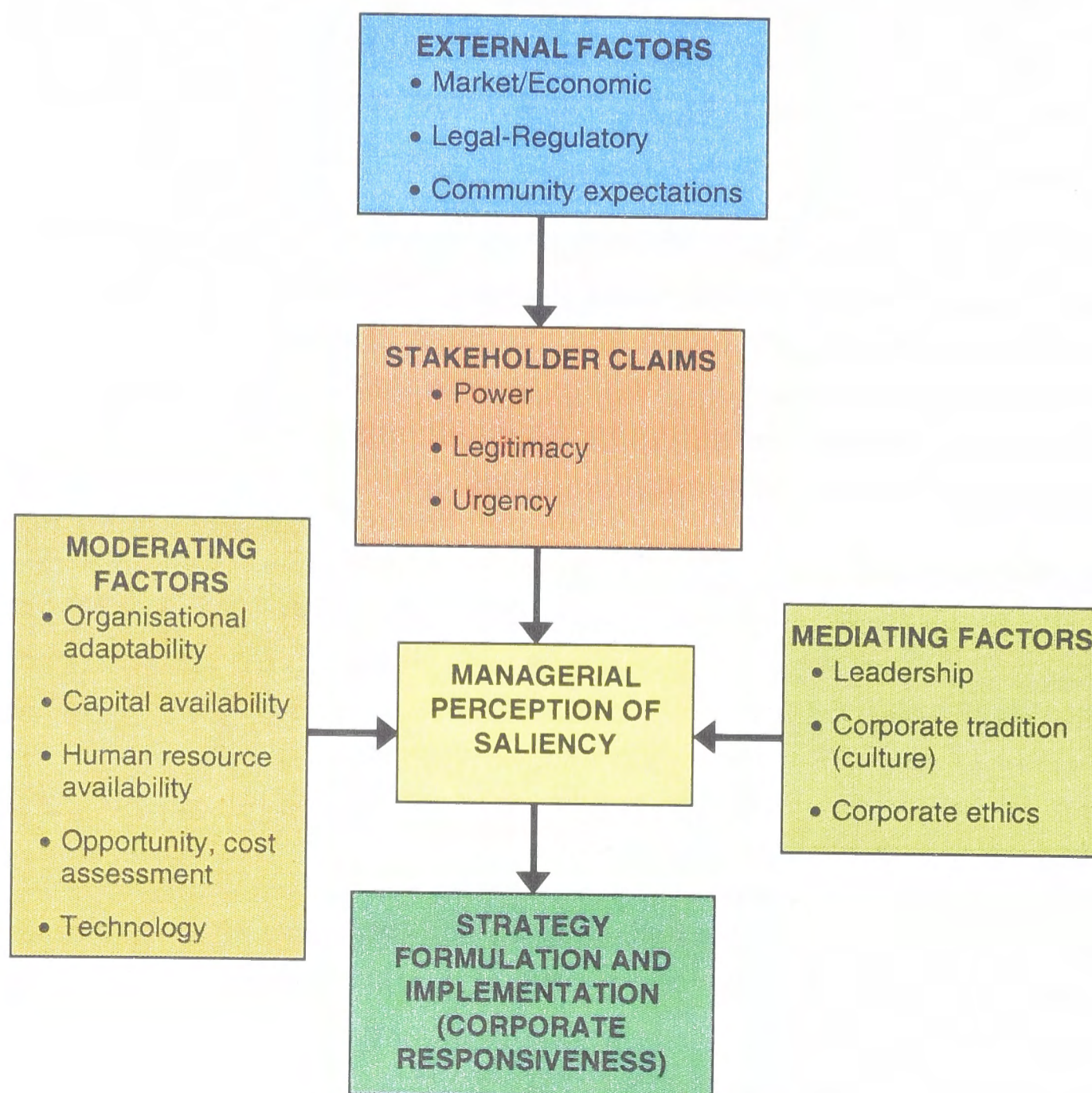
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<sup>11</sup> Espoused theories are “*what we say*”, whereas theories-in-use are those theories that lie behind our actions, i.e. “*what we do*” (Senge, 1990).

management, organisational behaviour, and stakeholder mapping and engagement. This researcher has constructed a conceptual framework to show the influence-response relationships between company managers and the stakeholder environment, to demonstrate how internal and external influences mould corporate social and environmental responsiveness. The framework, depicted in Figure 2-5, has been constructed by drawing together the following approaches:

- i) The advanced stakeholder model of Mitchell *et al.* (1997) and power-based framework developed by Hardy and Phillips (1998), to explain the influence of power, legitimacy and urgency on stakeholder-company relations, and consequential managerial responses to those challenges; and
- ii) Ghobadian *et al.* (1998)'s explanation of the interaction of external, mediating and moderating factors, to incorporate the dimension of behaviour-altering factors that can potentially affect managers' (decision-makers') perceptions and attitudes towards a situation and determination of stakeholder saliency.

**Figure 2-5 Conceptual Framework of Corporate Responsiveness**





In essence, this framework suggests that corporate responsiveness is the product of external factors (market pressures, legal-regulatory obligations, and community expectations), company attitude (mediating factors) and available resources (moderating factors). The influence of external factors is dependent upon the actions of stakeholders, whose influence, in turn, is dependent upon their attributes as perceived by company decisionmakers.

This framework is applied in this study to test the following research hypothesis:

*The social and environmental responsiveness practised by companies is moulded by their assessments of the business risks posed by the stakeholder environment. In the absence of a socially acceptable balance of power between companies, their regulators and third party stakeholders, company management practices will tend towards a minimalist position to maximise financial returns.*

# **CHAPTER 3**

# **METHODOLOGY**

The purpose of this chapter is to outline the approach and methodology employed in this study to gather, analyse, and interpret theoretical and empirical information.

### 3.1 APPROACH

Much of the research on environmental management within business organisations has been subject to criticism because it has been based “*on oversimple and modernist categorisations which, in turn, hide the complexities of the individual business organisation*” (Welford, 1998, p. 2).

Based on a review of contemporary corporate environmental management research, Welford (1998) suggests that the research has often taken a *positivist* approach. That is, an approach which focuses on objective-order paradigms, using theories of behaviourism, cognitive psychology, structuralism and management science to build models of causal relationships and explain behaviour. Research undertaken using this approach reports how particular companies have taken account of the social and environmental consequences of their actions, but such studies are often narrowly focused on social behaviour, and have not addressed the political aspects of these cases and their connection with broader community agendas.

Alternatively, some business-related studies have been based on an *interpretive* approach, with a subjective-order orientation. This approach takes into account the complexity and diversity of the real world, and attempts to describe situations by outlining the relationships between key paradigms and associated behaviours, in the context of social norms, values and beliefs. Interpretivism recognises the limitations of simplified models to describe complex situations, but Welford (1998, p. 7) suggests that “*it tends not to be critical or visionary and its approach is difficult to build into useful models with practical value.*”

It is suggested that more valuable contributions to learning can be obtained from interdisciplinary empirical studies that focus on development of an understanding of the tensions that exist between business, its stakeholders, and desired outcomes. The *critical theory approach* to research draws upon both the objective and subjective approaches, while aiming to produce an outcome that creates change (Morrow and Brown, 1994). Critical theory places emphasis on identifying the structures that prevent progress—the barriers to improvement. It also emphasises that knowledge is never independent and neutral, but is inherently linked to the interests of those people and institutions with power (Welford, 1998). The critical theory approach was selected for use in this study for these reasons.

The objective of this study is to analyse the drivers influencing corporate social and environmental responsiveness by upstream petroleum companies within the context of their business environment. The critical theory approach provides a guiding framework for

inquiry into the characteristics of influence-response relationships, and linkage to problem identification. This approach to research comprises four core phases: (i) preparation; (ii) design of the research structure; (iii) information gathering; and (iv) evaluation. Details of how each of these phases was addressed in this study are presented in the following sections.

### 3.2 PREPARATION

The preparation phase involves the identification of a real-life problem to be solved. Groups and individuals who are affected by or who are part of the problem (stakeholders) are also identified at this point in the research.

As introduced in Chapter 1, the 'real-life problem' that drives this research is the perceived need for reform of the environmental regulatory processes that control industry activities, to reduce the burden of regulatory enforcement on resource-constrained governments. Other researchers have identified that such reforms should endeavour to encourage industry to deliver responsible environmental and social performance to meet stakeholder expectations, while ensuring that the business continuity of industry is preserved. Stakeholders in this context can be broadly defined as the host community, industry and its shareholders, special interest groups (such as non-governmental organisations), regulators and consumers of industry products and services.

To develop appropriate regulatory frameworks, it has been suggested that context-specific information is required to develop an understanding of the business environment in which industry operates, and hence identify the influence-response relationships that affect company management decisions. This study endeavours to provide an insight into those relationships for the purpose of identifying opportunities to harness their associated influences on industry behaviour, through regulatory frameworks.

The scope of such a study is potentially too broad to be addressed within a single research project of 3-4 year duration, therefore key focal points were sought to guide the inquiry. Based on a review of international perspectives and research needs relating to environmental strategies for industry, Fischer and Schot (1993) suggested the following foci for such research:

- i) In-depth case studies to determine how organisational learning processes, that lead companies from a defensive mode of action to a more proactive mode, can occur within and among organisations. This work should employ, and be inspired by, theories developed within the framework of strategic management, organisational, and innovation studies. Eventually, this research could lead to a classification of

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groups of companies that go through similar learning processes under specific conditions.

- ii) Cooperation among companies on the environmental aspects of products is a growing trend, but it is still in its infancy. Investigations are needed on the forms of environmental cooperation that develop, on the kinds of barriers that are encountered, and on the kinds of driving forces that work. Research should focus on the factors that influence particular patterns of cooperation, such as product and commercial characteristics.
- iii) Research should be focused on how government policies can induce the transition from a defensive to an innovative environmental strategy in companies. In this respect, comparative research on national environmental policies can greatly improve understanding of the appropriate types of government intervention.
- iv) Much of the existing empirical research on this topic deals with the behaviour of companies in the Western (developed) world. More research is needed into inter-company and intra-company dynamics in non-Western countries. This research should take into account the effects and implementation of policies set by companies that are based in the Western world.
- v) Public pressures have been among the most important driving forces for changes in company behaviour. To deal with these pressures, companies and industry associations have developed codes of conduct and programs that have led to a new kind of social interaction and learning process between companies and the public and to changes within companies. Research is needed to map these evolving new relations and their effects on company behaviour.

The scope of the research project was defined on the basis of these suggestions, and the researcher's specific interests in South-East Asia and the upstream petroleum industry. This study therefore focuses upon the upstream petroleum industry sector (including local and multinational companies) operating in the developing region of South-East Asia, using Thailand as a case study. The analytical framework for the study was developed from the theories and models of strategic management, organisational learning and stakeholder relations discussed in Chapter 2.

Qualitative empirical information, including case studies, was chosen as the basis upon which to: (i) illustrate organisational learning processes; (ii) identify the impacts of government policies and regulatory frameworks on company behaviour; and (iii) analyse the influence of public pressures and inter-company and intra-company dynamics on petroleum company behaviour. Qualitative data gathering was selected in preference to quantitative data, because the aim of the study is to gather in-depth contextual knowledge on the subject matter, rather than data for representative or

comparative application. Qualitative techniques, like case studies, are commonly used for this type of study (Morrow and Brown, 1994; Yin, 1993).

All primary and secondary data gathering, analysis and interpretation was performed solely by this author. To maintain a measure of independence, the study was conducted without any financial support, directive or brief from industry, government agencies, environmental organisations or academia, apart from a post-graduate research scholarship from the Graduate School of The Australian National University and some logistical support from the Centre for Resource and Environmental Studies (CRES) of The Australian National University. No other organisation has provided any formal logistical or financial support, and none was sought.

### 3.3 RESEARCH STRUCTURE

#### 3.3.1 Interpretation

The research structure guides how the 'problem' is defined, researched, and the study findings presented. This phase is divided into five steps: interpretation, empirical examination, dialectics, awareness, and change.

The aim of the *interpretation* step is to develop a detailed understanding of each stakeholder's view of a situation, based on dialogue between the researcher and interested individuals and groups, to gain an understanding of the social, cultural and historical context.

This step was framed by defining the context within which the 'problem' was set. Literature covering the fields of strategic management, organisational behaviour and stakeholder theory was reviewed to develop a framework that could be used to define the context of the 'problem' (see Chapter 2). From this review, it is concluded that the context can essentially be described by three groups of factors and their interactions, i.e. the external, moderating and mediating factors. In this study, the external factors are represented by: (i) the market in which the upstream petroleum industry operates (at the national, regional and global levels); (ii) the legal framework within which the industry currently operates in South-East Asia (including home country corporate governance requirements); and (iii) the socio-political environment in which the industry's stakeholders live and operate. The moderating and mediating factors refer to the structure and character of petroleum companies and the internal company attributes that influence the decision-making processes of their managers.

The conceptual model of corporate responsiveness presented in Chapter 2 (Figure 2-5) was developed and applied to use these factors to define the business environment of the upstream petroleum industry and the company-stakeholder relationships that are the

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focus of this study. This model was used to guide the scope of data gathering and interpretation of the empirical information.

### 3.3.2 Empirical Examination

The *empirical examination* step aims to provide an empirical account of the context in which the ideas of the stakeholders have developed. That is, the historical and cultural development of the social structures and processes which relate to the subject of study.

Suitable qualitative empirical information sources (primarily interviews and literature) were identified to describe each of these factors and their inter-relationships in a broad sense. That is, to develop an understanding of how the business and culture of the petroleum industry have evolved over time in response to local and global influences from its markets and stakeholders. Information was also sought at regional and national levels to form an understanding of how the environmental regulatory framework has been developed in South-East Asia, and specifically Thailand, and to canvas perceptions of its associated strengths and weaknesses.

The following questions were developed and applied to guide the research:

- i) How are business pressures (especially environmental and socio-political issues) perceived and assessed by petroleum exploration and production companies, and how do these assessments affect their management strategies?
- ii) How do regulatory frameworks affect the way that petroleum companies: (i) perceive and address statutory environmental management obligations; and (ii) perceive the salience of third party stakeholder interests?
- iii) How can private and public sector policymakers apply the findings of this research to design and implement regulatory approaches to improve corporate environmental management practices of upstream petroleum companies?

To complement this information at a more focussed, in-depth level of inquiry, a case study approach was selected as a tool to develop an understanding of the influence-response relationships between the petroleum industry, the regulatory framework and stakeholder expectations. Two case studies were selected to demonstrate how community perceptions of the rules for acceptable company behaviour have evolved in Thailand, and how those changing perceptions can affect community-industry-regulator relations and influence the environmental and social management strategies employed by petroleum companies. The case studies are:

- i) Case Study 1. The issue of marine ecological contamination and human health risks associated with handling and discharge of produced mercury from gas fields in the Gulf of Thailand.

- ii) Case Study 2. Ecological conservation, environmental risk, human rights, and community consultation issues associated with the development of the *Yadana* gas field in the Gulf of Martaban, Union of Myanmar, and the installation of the gas sales pipeline from Myanmar to Thailand.

These case studies were selected on the basis of their geographic focus, the focal issues, the key participants, and timeframe. As indicated in Table 3-1, both case studies are based in Thailand, and share common timeframes, key issues and participant groups, but a fundamental difference is the project proponent. Case Study 1 involves an independently owned multinational petroleum company, while Case Study 2 focuses on a Thai state-owned petroleum company. The differences in the ownership of the projects (state versus private ownership) and the dominant culture of the proponents' management team (Thai versus US) provided useful variables to assess whether these differences affected the way they responded to the stakeholder challenges with which they were confronted.

**Table 3-1 Case Study Selection Criteria**

Criteria	Gulf of Thailand Mercury in Produced Formation Water	Myanmar-Thailand Yadana Gas Pipeline
Geographic focus	Thailand	Thailand
Key issues	Environmental degradation, stakeholder consultation and participation; regulatory processes	Environmental degradation, stakeholder consultation and participation; regulatory processes
Project proponent	Independently owned multinational petroleum company (Unocal Thailand Co.)	Thai State-owned petroleum company (Petroleum Authority of Thailand (PTT))
Key actor groups	Thai government regulators, Thai newspapers, environmental NGOs	Thai government regulators, Thai newspapers, environmental NGOs
Timeframe	1995-1998	1995-1998

Information derived from the empirical examination forms the basis of Chapters 4, 5 and 6.

### 3.3.3 Dialectics

The *dialectics* step involves comparison of the stakeholders' understandings of the situation under study and the perceived relationships between different groups, with the aim of identifying the inconsistencies and contradictions that exist in a particular situation, and hence the nature of the power structures relating to each group and interest.



The dialectics step was approached through the analysis of the behavioural relationships that were observed in the case studies, and further inquiry into the external factors that influence stakeholder perceptions of the definition of corporate social responsibility, and the associated roles and responsibilities of industry, regulators and the community. The outcomes of this step are described in the latter sections of Chapter 6 and in Chapter 7.

### **3.3.4 Awareness and Change**

The *awareness* and *change* steps aim to: (i) communicate the findings of the research to the stakeholders in order to help them see their position differently, and open up opportunities to pursue alternative ways of behaving; and (ii) translate the acquired awareness into action, for example through the development of improved stakeholder identification and consultation approaches for companies.

The awareness and change steps form the basis of the study conclusions and recommendations presented in Chapter 8. They address the factors that affect corporate responsiveness in the Thai (and South-East Asian context), the stakeholders who are influential in the business environment of the upstream petroleum industry, and the potential opportunities for harnessing stakeholder influence through reform of existing regulatory frameworks in that region.

## **3.4 INFORMATION GATHERING**

### **3.4.1 Introduction**

The purpose of information gathering is to describe the structures, cultures and historical events that have shaped the present situation, as well as to provide information that describes the competing objectives between different groups and their power structures and relationships.

To address these objectives, the research essentially followed two lines of inquiry:

- i) Primary and secondary data collection to: (i) provide a profile of the upstream petroleum industry; and (ii) gain a more in-depth understanding of the driving influences behind corporate environmental management strategies of petroleum companies, specifically in reference to their operations in South-East Asia.
- ii) Primary and secondary data collection to look at some specific examples of corporate environmental management strategies in application, through case study research.

To gather information for this research project, the following tasks were performed:

- i) A literature review of available, relevant published and unpublished documentation, covering underlying academic theories, trends in corporate environmental management, information for the case studies, and reports on other relevant case studies.
- ii) Field research involving attendance at academic and industry conferences, and interviews with regulators, non-governmental organisations (NGOs), institutional strengthening donor agencies, industry representatives and academics. The objective of this consultation was to identify local issues and perspectives on the case studies, and perceptions of the corporate social and environmental responsibilities expectations placed on the petroleum industry.

The approach taken to information gathering was qualitative. The principal forms of primary data collection were semi-structured and unstructured interviews with key informants; observations made during participation in seminars and conferences, and past and on-going consultancy work. The insights and opinions offered in the interviews, together with the author's own professional experience<sup>1</sup>, form the basis for much of the empirical component of study. Primary data collection was undertaken opportunistically between November 1996 and December 1998.

Secondary data sources included articles from newspapers and industry periodicals, Internet websites, and published conference proceedings, journal papers, and textbooks.

### 3.4.2 Interviews

An important empirical element of this study was research based on interviews conducted during 1997-98. To obtain a range of perspectives on the broader issues of environmental management trends and expectations, respondents were selected from the groups of stakeholders listed in Table 3-2.

For the purpose of developing a broad perspective on the contextual aspects of the study, strategically targeted interviews were conducted with key informants, selected using the snowball sampling technique (Weiss, 1994). An initial group of respondents, identified by the researcher through existing contacts, were interviewed. They were subsequently asked to provide referrals to other potential sources whom they knew to have an interest in, or particular experience of relevance to, the topic of study. Those referrals in turn provided other referrals for information. In the majority of instances,

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<sup>1</sup> I have worked for some 15 years as an environmental scientist and environmental consultant performing environmental impact assessments, environmental audits and development of environmental management plans and environmental, health and safety management systems for the upstream petroleum industry in the Asia-Pacific region.

the referred respondent agreed to be interviewed. For the case studies, the referral process was focussed on identifying key individuals who had first-hand experience of the situations. Less than 10 percent of prospective respondents declined or were unable to be interviewed, primarily for reasons related to unavailability rather than unwillingness.

Characteristics of the respondents are summarised in Table 3-2.

**Table 3-2 Profile of Interview Respondents**

Respondent Category	Base Location	No. of Respondents
Petroleum Company Employees	Australia, Indonesia, Myanmar, Philippines, Thailand, Vietnam, United Kingdom, United States of America	32
Petroleum Industry Consultants and Contractors	Australia, Philippines, Singapore, Thailand, United Kingdom, United States of America	12
Representatives of Petroleum Industry Associations	Australia, Thailand, United Kingdom	5
Regulators	Australia, Myanmar, Thailand, Vietnam	10
Representatives of Environmental NGOs	Australia, Malaysia, Thailand	3
Representatives of Print Media	Singapore, Thailand	7
Representatives of Financial Donor/Institutional Strengthening Agencies	Philippines, Thailand	5
Academics involved in research relevant to the petroleum industry sector	Australia, Singapore, Thailand, United Kingdom	11

Interviews were usually arranged in advance and were generally held in the respondent's workplace, or some other mutually convenient location. Almost all interviews were conducted one-on-one and face-to-face. Only a few interviews were conducted by telephone due to logistical constraints. All interviews were conducted in single sessions, which usually took between 1-2 hours. In some cases, key respondents were interviewed twice during the course of the research to gather further information, following initial analysis and evaluation. All interviews were conducted in English. While English is not the native language of many of the foreign respondents, all were fluent English speakers and language barriers were not encountered during the interviews.

The aim of the interviews was to explore the beliefs, opinions and attitudes on environmental, economic and social issues that have developed in regard to the

upstream petroleum industry and within it. The lines of questioning were focussed, but maintained flexibility to ensure coverage of the major issues as identified by the respondent. The interviews sought to elicit the cognitive and emotional sources of respondents' reactions to events that they had experienced or processes with which they were required to work. As described by Weiss (1994, p. 208), this style of qualitative interviewing, when applied to stakeholders in a particular situation, regards the *"respondents as subjects whose response to the event is the material to be understood, rather than as reporters from whom we will learn about the event itself"*.

At the beginning of each interview, I explained to the respondent my research interest, my background in the industry, and the purpose of the interview. Interview respondents was assured that their responses would be anonymous and confidential, unless otherwise agreed. Interview structure varied according to the interview respondent and their relevance to the topic and/or case study. Both semi-structured and unstructured interview techniques were used.

In this context, semi-structured interviews are defined as those in which an interview guide was used to frame the topic and key points to be covered in the interview. Key topics canvassed in the interviews addressed the themes of the four key research questions listed above.

The unstructured interviews were conducted more like a discussion in which a topic for discussion was introduced by the researcher, and then subsequent questioning by the researcher was based on the information that was provided by the respondent in the course of the discussion. Unstructured interviews were used to gather oral histories for the two case studies, and anecdotal accounts of other relevant real-life situations. The interviews focussing on the case studies sought to discover how each of the interests perceived the involvement of themselves and of other participants in the situations and how those participants were observed to use their attributes to achieve their desired outcomes.

Both the semi-structured and unstructured interview techniques provided the opportunity for the researcher to probe the depth of the respondents' knowledge and experience and insights. For this reason, I often took an active participative role in the interview dialogue to facilitate further discussion on key observations.

Interview notes were written down during the interviews and written out in detail immediately following each interview, while details of the dialogue were still fresh in my memory. Interviews were not tape-recorded because respondents were offered anonymity, and I perceived the absence of a tape-recorder as being more conducive to an open and unreserved interview.

### 3.4.3 Observation

Attendance, as an observer-as-participant at petroleum industry-hosted seminars and conferences, was used as a method to study interactions between petroleum companies, their industry groups, their regulators and NGOs. The interactions between the participants in public discussions were observed to gain insights into how petroleum companies seek to portray their messages to stakeholders and engage stakeholders in discussion of issues.

Six fora, in particular, were attended for this purpose:

- i) The Second Annual International Workshop on Oil and Gas Development in Continental Southeast Asia: Regulations and Policies on the Prevention of Pollution in the Oil and Gas Industry, held in Ho Chi Minh City, Vietnam, on 10-13 September 1996.
- ii) The Third Regional Petroleum Industry Environment, Health and Safety Conference: A Regional Approach to Cooperative Environment, Health and Safety, held in Chiang Mai, Thailand, on 4-7 November 1997.
- iii) The Atlantic Frontier Environmental Conference (AFEC), held in Aberdeen, Scotland, on 6-7 October 1998.
- iv) Four annual conferences hosted by petroleum industry group, the Australian Petroleum Production and Exploration Association (APPEA) in Darwin (July 1996), Melbourne (April 1997), Canberra (March 1998), and Perth (April 1999).

The former two conferences were organised and hosted by a group of petroleum companies and government ministries, with leadership from the Texaco Foundation and the Asia Foundation. The purpose of these conferences was to provide a forum for explaining the approaches petroleum companies are taking to environmental, health and safety management, and sharing of perceptions about the industry's impact and responsibilities between the industry, regulators and community representatives (i.e. NGOs and the media) in the South-East Asian context. These conferences provided the researcher with an insight as to how these fora are used by petroleum companies to build stakeholder understanding of their operational environmental and management initiatives, and attempt to influence regulators to consider regulatory options on the merits of the outcomes they will achieve. Observations at these conferences also provided an insight into how regulators and NGOs use these fora to seek funding and capacity building assistance from petroleum companies to address environmental issues.

The AFEC conference was organised and hosted by The Atlantic Frontier Environmental Forum (AFEFF)<sup>2</sup>. The purpose of the conference was to “*involve a wider audience in discussing environmental issues arising from oil industry activities in the Atlantic Margin*”. It provided a forum for interested groups and individuals to receive information and insights from recent scientific research, as well as provide a forum for stakeholder concerns and expectations to be discussed.

This conference provided a contrast to the former two, in several ways. The petroleum industry in the West of Shetland area is addressing many of the same multiple resource use issues that are of relevance to the petroleum industry operating in the Gulf of Thailand. However, in the West of Shetland area, the petroleum companies are operating in a developed ‘Western’ region with a well-established regulatory framework. While the West of Shetland area is a relatively new petroleum development area, the petroleum companies and regulators involved have been operating in the adjacent North Sea area for over 30 years and have a depth of experience to draw upon in terms of co-operative arrangements and stakeholder involvement.

The AFEC conference provided the researcher with an opportunity to research a different situation to Thailand, and compare and contrast the way in which petroleum companies addressed environmental stakeholder challenges. In particular, it provided an opportunity to probe whether, the benefit of some 30 years of industry learning in the region was being applied to the planning and management of the upstream petroleum sector’s new ventures in the sensitive West of Shetland environment.

The other key fora were the annual APPEA conference. APPEA is the leading upstream petroleum industry association in Australia. The APPEA conferences are generally well attended by a range of senior management and technical level representatives from petroleum companies, industry service and supply contractors and consultants, regulators, academics and special interest groups. Technical and plenary papers presented at these conferences cover the range of operational and policy issues that face the industry’s business activities in Australia, but also in Asia and globally. These conferences are regarded by this researcher to provide an informative and ‘real-time’ indicator of how the industry perceives the impact of moderating, mediating and external factors on its current business, as well as identifying emerging trends that are influencing business direction.

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<sup>2</sup> The Atlantic Frontier Environmental Forum (AFEFF) is a consultative forum, established to represent the interests of stakeholders in the Atlantic Margin region. It has an independent Chairman, and representatives from local authorities, wildlife and other conservation groups, central government and government agencies, academia and the offshore oil and gas industry.

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As an observing participant at the APPEA fora, I had the opportunity to talk to key respondents about their perception of industry-related issues and challenges. Presentation of technical papers on this research, at the 1997 and 1998 APPEA conferences also provided me with an opportunity to stimulate some debate on the issues of legal liabilities and corporate social responsibilities associated with petroleum company operations in Australia and South-East Asia.

#### 3.4.4 Secondary Sources

Secondary data used for this study comprised technical information, and accounts of similar studies obtained from published statistical data, corporate annual reports and other literature, including Internet websites, the sectorial and academic literature, authoritative public opinion surveys, and media reports.

Secondary data for the case studies was largely drawn from two English language Thai newspapers, the *Bangkok Post* and *The Nation*, both of which carried extensive and long-running coverage of the case studies. Reliance upon these English-language sources was due to the fact that the researcher does not speak, read or write Thai. It is acknowledged that as a consequence of this language barrier, other valuable sources of information and different media perspectives may have been precluded from the study. However, opinion sought on this issue from bi-lingual peers, resident in Thailand indicated that the *Bangkok Post* and *The Nation* accord more attention to environmental issues and critical analysis of those issues than the Thai language newspapers. As one respondent stated:

*“... The main thing to point out here is that the Bangkok Post and The Nation serve far more than expatriates—they are, to use the British media terminology, the broadsheets of Thailand, while the Thai dailies are the tabloids. It’s generally only when there are some major scandals associated with the environment that the environment gets good coverage in Thai media. The environment does get good coverage on the television, but mostly as a human interest type thing—not exactly incisive analysis, more promotional stuff and sloganising of environmental problems.”*

On the basis of such perceptions, together with use of other substantiating sources of information for the case studies, the researcher is confident that the *Bangkok Post* and *The Nation* articles are credible sources of public comment on current environmental issues.

#### 3.4.5 Application

Information derived from primary and secondary sources has been incorporated and integrated throughout this thesis, so that wherever possible, theoretical discussions on corporate behaviour and perspectives are illustrated with accounts of empirical observations. In the case of some of the one-on-one interviews, information and

opinions were provided by respondents on the understanding that their comments would not be directly attributable to the individual, for reasons of professional confidence. In such cases, the anonymity of the informants has been maintained in citation. Where information and analyses are not attributed, they are based on my own experience.

### 3.5 EVALUATION

The final phase in the critical theory approach is the evaluation of the study findings. This step involves the synthesis of study findings to describe the situation under study, based upon the perspectives of the stakeholders and other information sources, and to identify what improvements are required and how they could be put into action.

Primary data analysis in the context of a qualitative, exploratory research project involves some interpretation of meaning by the researcher, based on the context of the interview and the respondent. Data analysis was based on an inductive approach in which ideas were shaped and formed during the research process.

For the case studies, the secondary data were used as the starting point to describe the chronology of events and identify key actors. Primary data were used to gain more in-depth retrospective views of key informants of the meaning behind actions; the lessons learnt from the projects and the outcomes. Inductive analysis was undertaken on an ongoing basis throughout the primary research period (1997-1998) as more information was acquired through interviews and other sources. The data were reviewed and compared with the conceptual framework of corporate responsiveness developed by this researcher (see Chapter 2) to test the fit to the model, and to substantiate or 'disprove' the study hypothesis.

### 3.6 CONCLUDING COMMENTS

This researcher considers that the approach and methodology employed in this study provided the necessary flexibility to follow 'leads' that exposed in-depth perspectives on the underlying issues and inter-relational dynamics, and to gather and interpret information in an iterative way throughout the study. As knowledge and understanding evolve through the course of the research, they can be re-applied to lead to a more focussed level of inquiry into the cause and effect linkages in company-stakeholder relationships.

It is recognised that the qualitative, investigative style of this type of research can potentially be open to criticism. This research does not attempt to discover through intensive analysis and experimentation, relationships between specified processes and outcomes. Instead, principles or constructs of corporate social and environmental responsiveness are derived from this researcher's interpretation of the way in which petroleum companies interact with their stakeholders and the results of their actions.



Many of the contextual issues are emotive and their analysis can be influenced by subjective interpretation. It is acknowledged that my background experience invariably introduces some unavoidable researcher bias to this study. Interpretation, biased by the researcher's existing background knowledge of the context, may cause the researcher to draw conclusions too quickly about what is happening. Throughout the research, I did not assume the position of an impartial and objective scientist. I made it known to each informant that my interest in this topic had evolved from my over decade-long involvement as a consultant to the upstream petroleum industry. A positive aspect to this open approach is that it can facilitate access to some otherwise potentially inaccessible respondents. My background experience with this industry, and work experience in Thailand, provided me with personal contacts, connections and an acceptance from key informants, that perhaps may not have been as readily available to a researcher from "outside" the industry.

In choosing only two case studies, I was also aware of the inherent criticism that the significance of the in-depth research would be limited to those two cases. This interpretive risk is, however, balanced in other ways by past experience that enabled me to recognise recurrences of past observations or situations, and identify trends or patterns of behaviour, as compared with isolated, random events. Observations drawn from the case studies were also compared with other case studies reported in the literature, which shared similar characteristics. The case study research was used to generalise the findings to broader theoretical models and issues of stakeholder relations, rather than to conclusions about the differences between multinational company approaches and state-owned enterprise approaches.

# CHAPTER 4

## THE UPSTREAM PETROLEUM SECTOR

*“[O]ur shareholders want top performance and profits whatever the oil price or business environment. Society wants cheap, reliable, safe and sustainable energy, produced with no damage to the environment. Local communities want jobs and long term commitment to investment with responsible environmental performance ... One of the biggest challenges for the oil and gas industry is to show that we can be good ‘corporate citizens’. To show that the economic, environmental and social impacts of our activities are on balance positive for everyone - for our employees, for customers, for all of those with whom we do business and for the national and local communities affected by our operations” (Hayward, British Petroleum Co. plc, 1998).*

## 4.1 INTRODUCTION

The theoretical framework developed in Chapter 2 suggests that an analysis of the business environment in which petroleum companies operate will lead us to an understanding of how companies perceive and respond to their corporate social and environmental responsibilities within the framework of strategic management. It is recognised that corporate social and environmental responsiveness may be influenced by deliberate managerial intent, cultural and political processes in and around companies, and imposition of regulatory standards. Ghobadian *et al.* (1998) suggest that a relationship between decision-making processes and the development of strategic environmental policies, and hence the investment decisions that flow on from these actions, can be defined using an approach based on three categories of behaviour-altering factors, as listed in Table 4-1.

**Table 4-1 Corporate Behaviour-Altering Factors in Decision-Making Processes**

External Factors	Mediating Factors	Moderating Factors
<ul style="list-style-type: none"> <li>• Market behaviour</li> <li>• Legal-regulatory influences</li> <li>• Social expectations</li> </ul>	<ul style="list-style-type: none"> <li>• Leadership (style, commitment, concern, objectives)</li> <li>• Corporate tradition (culture)</li> <li>• Corporate ethics</li> </ul>	<ul style="list-style-type: none"> <li>• Organisational adaptability</li> <li>• Capital availability</li> <li>• Human resource availability</li> <li>• Opportunity, cost assessment</li> <li>• Technology</li> </ul>

Adapted from Ghobadian *et al.* (1998)

The purpose of this chapter is to present a profile of the upstream petroleum industry, based on this approach, to develop an understanding of the context in which the industry operates.

Section 4.2 provides an overview of the industry's market environment and ways in which the industry has positioned itself to adapt to on-going marketplace changes. Section 4.3 explains industry-specific aspects of the regulatory environment. Section 4.4 provides examples of the influence on corporate behaviour that can be wielded by peers, shareholders and third party interest groups. Sections 4.5 and 4.6 highlight aspects of corporate culture, ethics, and leadership styles and company performance standards that can influence corporate management strategies. Sections 4.7 and 4.8 demonstrate the role of capital, technology and cost-benefit analyses in moderating corporate management behaviour. Section 4.9 looks at the effects of human resources and organisation learning on corporate management strategies. Finally, Section 4.10 presents

an analysis of the profile and draws conclusions about contextual aspects that are of relevance to regulatory design.

## 4.2 MARKET INFLUENCES

### 4.2.1 Industry Profile

Petroleum (oil and gas), by virtue of resource and market geography, is a transnational industry. During a large part of the 20th century, oil, in particular, played an important role in economic, social and technological development, and has developed as a highly influential factor in transnational affairs (trade, finance and interstate relations) (Mikdashi, 1986). Between the 1940s and the 1960s, the world oil market was largely dominated by a few major multinational petroleum companies (the 'majors')—the US-based companies: Amoco, Exxon, Mobil, Texaco and Chevron, and the European companies, British Petroleum (BP) and Royal Dutch/Shell. These companies were commonly known as the 'seven sisters' (Ketola, 1993; Sampson, 1993; Yergin, 1992). Until the 1960s, the seven sisters were able to use their large concessions<sup>1</sup> (in their home countries and overseas) and inter-company cooperation to effectively exclude new entrants to the upstream industry (Sampson, 1993; Yergin, 1992).

These multinationals were often accused of socially irresponsible business practices, such as the use of capital-intensive technology with minimal local citizen employment; acquisition of supplies from abroad, rather than locally; use of transfer prices and technology agreements to avoid taxes; and repatriation of earnings to their home countries. As a consequence, the benefits of their activities accrued to the home country and to only a small part of the host population allied with the corporations (Roland, 1998b). Host governments, especially those in the Middle East, became increasingly concerned about the economic domination of these companies over their domestic oil sector. In the 1960s and early 1970s, these nations took measures to improve their own positions and reduce the market control of the major multinational petroleum companies. Their actions included nationalisation and expropriation of foreign-operated petroleum facilities (McKern, 1996).

Mikdashi (1986) identified several factors, which contributed to the improved bargaining stand of host countries during this period. These include: (i) political independence and growth of nationalism; (ii) increased sophistication and civic consciousness of national decision-makers, coupled with their easier access to independent international expertise; (iii) the desire to emulate governments in developed countries which had obtained attractive terms for oil leases on their public land (notably

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<sup>1</sup> A concession is a licence area that is leased to a company for a given period for exploration and development under specified terms and conditions.

the US); (iv) the ability to invite competitive bidding from 'independent'<sup>2</sup> companies; (v) the exchange and sharing of information and experiences, and concerted joint efforts through groupings of a regional or interregional nature to improve terms, such as the Organisation of Petroleum Exporting Countries (OPEC<sup>3</sup>); and (vi) the greater scarcity of oil or increased market value of the commodity, especially after 1969.

As a result of the changes introduced by host governments and the oil crisis of the early 1970s, many new petroleum companies joined the majors in the international upstream market. Mikdashi (1986) classified these new entrants into three main groups:

- i) Medium-sized companies (also known as mini-majors), many of which are US-based firms that formed during the 1950s. They formed at that time to search for cheaper sources of foreign crude oil, to replace declining or increasingly expensive national production for their refining and marketing outlets in the US, and compete on more equal terms with the low-cost foreign crude supplies of the majors.
- ii) European and Japanese state-owned or state-supported companies which sought to reduce their dependence on the majors for economic and national security reasons, e.g. Total and Elf-Aquitaine (France), the Japan National Oil Corporation (Japan), and Statoil (Norway).
- iii) Companies from developing countries which have attempted to develop national or foreign oil resources, especially since the oil price increases of the 1970s. Their activities have often been initiated by the nationalisation of domestic foreign-owned assets or through participation in joint ventures with foreign petroleum companies, e.g. PETRONAS of Malaysia and PETROBRAS of Brazil.

By the 1980s, the emphasis of developing countries on permanent sovereignty over natural resources, had been overtaken by the problems of heavy debt burdens and the collapse of commodity prices. By contrast to the 1960s and 1970s, the negative image of the multinationals was essentially disregarded and was replaced by the "*present scramble by third world governments for attention by prospective investment by multinational companies*" (Roland, 1998b, p. 106). In the 1990s, more new frontiers

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<sup>2</sup> The independent petroleum companies (commonly referred to as the 'independents') are those which are neither one of the major transnationals nor state-owned.

<sup>3</sup> OPEC was formed in 1960 by Saudi Arabia, Venezuela, Kuwait, Iraq and Iran, to challenge the price cutting activities of the transnational majors they hosted and defend/restore the price of their oil exports (Yergin, 1992). At the time of its creation, member countries' share in the production of their petroleum was only about 2%. In 20 years it rose to over 75%, mainly as a result of the purchase or nationalisation of oil assets (oilfields, refineries, and distribution networks) previously owned and operated in the OPEC host countries by the major transnationals (Mikdashi, 1986).

opened up due to: (i) political changes—the abandonment of socialism reduced political barriers to Western companies in the former Soviet Union and in parts of Latin America, Asia and Africa; and (ii) technical advances, which have made it possible to explore for oil and gas in previously inaccessible places, notably offshore, e.g. West Africa, South-east Asia and the North Atlantic (Bray, 1997).

The 1980s and 1990s were characterised by oil price crises, which precipitated further changes in the industry's business strategies. Prior to 1986, the majors, independents, state oil companies and service sector companies played defined roles in the upstream petroleum business. National oil companies held significant reserves and looked to the majors to help them expand the oil and gas industries of their countries. Independents targeted niche opportunities, primarily in the US. Oilfield service companies focused on providing discrete, commodity-like services, seismic surveying, and drilling and completing wells.

The oil price collapse of 1987-1992, however, resulted in a changed industry structure and business roles. The majors took decisive action to restore profitability. They terminated 372,000 employees during 1985-95; cut their research and development budgets at a compounded annual rate of almost 5% during 1990-94; restructured their portfolios around core businesses and assets; and divested more than US\$10 billion in non-core exploration and production assets during 1989-95. The divestments often went to independents (which consequently gained a platform from which to launch future international ventures) (Murphy *et al.*, 1997). Along with these cuts, the majors began out-sourcing and forming alliances with oilfield service companies to source services they used to provide internally. As a result, oilfield service companies are now filling roles in the upstream petroleum business that formerly belonged solely to the majors. Along with providing traditional commodity-like services, the oilfield service companies are delivering high-end technical services and, increasingly, playing the project integrator role<sup>4</sup>.

The petroleum industry is now comprised of numerous petroleum companies (explorers and producers), ranging from large international groups of affiliated companies, to small domestic companies.

In response to the changing market place, and policies and commercial activities of host countries, the petroleum industry has been characterised by phases of 'vertical integration', 'deintegration' and 'reintegration' (Mikdashi, 1986). The majors and many state-owned companies, in particular, have undertaken vertical integration of business

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<sup>4</sup> For example, in a joint quest to exploit oil reserves in deep water of the US Gulf of Mexico, Conoco established a joint venture with drilling contractor, Reading and Bates, to build a state-of-the-art drill ship capable of drilling in a water depth of 10,000 ft (Crump, 1997).

functions. They commonly own and operate (or franchise) upstream (exploration and production), mid-stream (transportation) and downstream (processing, refining, distribution and chemicals) businesses. As integrated firms they can control activities, extending from the production of raw materials to their transport, transformation and distribution to end users (Mikdashi, 1986; McKern, 1996).

The multinationals are commonly characterised by structures that attempt to combine the local responsiveness of the international subsidiary with the advantages available from global co-ordination. They tend to be organised into groups of companies bound together through shareholding. The group of subsidiaries or affiliated companies is typically controlled (directly or indirectly) by a parent company, which is often based in a Western home country. The affiliated companies may operate in any country in the world, subject to the availability of viable prospects for exploration and production, and political access. These affiliated companies (operating companies) are the entities that seek to obtain legal permission (licenses or contracts of work) to operate in a host country (Taverne, 1994).

The key to this model is the creation of an integrated network of interdependent resources and competences. The multinational (or transnational) model exhibits the following features: (i) each national unit operates independently, but is a source of ideas and capabilities for the whole corporation; (ii) national or business line units achieve global scale through specialisation on behalf of the whole corporation; and (iii) the corporate centre manages a global network by first establishing the role of each subsidiary, then sustaining the culture and systems to make the network operate effectively. For example, in the late 1990s Unocal set up a joint global headquarters in Malaysia to reflect the company's growing business in Asia. According to Unocal President John Imle,

*"We are operating a twin headquarters system with our chairman and key officials still based in Los Angeles". The Kuala Lumpur headquarters "makes us more Asian in terms of our understanding of the region and the outlook" (Upstream, 1997a).*

Another trend in the highly competitive marketplace of the mid-late 1990s, was a marked increase in the number of mergers and acquisitions amongst the majors and independent petroleum companies. Perhaps the most notable of which was the merger of the two vertically-integrated majors, Exxon and Mobil (announced in December 1998), to form the world's largest petroleum company, or what has been termed a 'supermajor'. This was followed shortly after by the announcement of the merger between BP Amoco and ARCO. Amongst the independents, competitive performance pressures are also driving mergers and hostile takeovers between petroleum companies in order to pool their financial resources and form larger companies, termed 'superindependents'.

One of the emerging trends amongst the majors is to become *energy* companies in pursuit of the 'total energy solution'. This strategy involves linkage of upstream, midstream and downstream assets within and across regions to create 'competitive space' between themselves and smaller, niche specialists, and to capture the vertical integration benefits that still exist in many emerging markets. A few majors, like Exxon-Mobil in the Asia-Pacific liquefied natural gas market, and Unocal in South-East Asia, appear to be moving in this direction (Murphy *et al.*, 1997). Unocal Corporation Chairman Roger Beach, has stated that Unocal's growth portfolio is focused on six areas. This portfolio includes the Thailand-Myanmar-Vietnam region which "*combines known hydrocarbon basins with rapidly developing gas-to-power markets*" (Battersby, 1998e). The company's local strategy was reflected in the President's Message in Unocal Thailand's 1998 GO-HES Review and Action Plan:

*"During 1998, we will face new challenges as the economy of Thailand adjusts and we compete with other Gulf of Thailand gas producers. To meet these challenges, we will be placing emphasis on planning in all aspects of our operations, a very necessary step to maintain our leadership position"* (Unocal Thailand Ltd, 1998).

Globalisation means opportunities as well as challenges to the oil and gas industry, including globalisation of environmental concerns. Transnational operations by companies serve to expose companies to an increasingly demanding political agenda (Fowler, 1995). At the same time, the globalisation of environmental concerns means that domestic regulations are no longer the only rules to play by for oil and gas companies. With regard to global warming, for instance, this means that investments in any part of the world may have to take into account future provisions under the Climate Convention. This may fundamentally impact upon corporate strategies. Global warming, however, may also bring new opportunities for forward-looking energy companies, with increased market shares for lower carbon fuels and technologies and involvement in joint implementation and emissions trading (Roland, 1998d).

To summarise, although petroleum companies vary considerably with respect to origin, size, structure, strategy, management, innovation, flexibility, and performance, Mikdashi (1986) suggests that two key objectives essentially determine their behaviour: (i) high profits and growth, and (ii) the stability and long-term survival of the company. More specifically, the operational objectives are: (i) to enhance the security of product flows from sources of supply to outlets; (ii) reduction of transaction costs; and (iii) achievement of information advantages that assist rational programming of investments and activities.

#### **4.2.2 Current Asian Market Opportunities**

Within East Asia, Indonesia, Malaysia and Thailand have for many years been centres of upstream petroleum sector investment. Over the last decade, Cambodia, China, Laos,



Myanmar (Burma), the Philippines, South Korea and Vietnam have also been opening up their acreage<sup>5</sup>. Investment in the oil and gas exploration and production sector in South-East Asia grew steadily throughout the 1990s. The prospects for future gas discoveries in the region are believed to be as good as and, in some areas, better than oil (Norton, 1994). The opportunity to access prospective acreage is therefore still improving, although investors will still have to make economic choices about where they place their risk capital.

In the past, exploration focus in Asia was on oil—natural gas discoveries were lamented. However, the rising local electricity market demand for gas, together with advances in liquefied natural gas (LNG) liquefaction and transportation technologies have made natural gas a very attractive and viable commodity for sale within South-East Asia and North Asia (Japan and South Korea) (Eklof *et al.*, 1997). Strong growth in the use of natural gas is seen as desirable to increase diversity of energy supply, to reduce environmental emissions problems for coal-fired power stations, and to assist in meeting the rapidly growing demand for electricity (International Energy Agency (IEA), 1996). The devaluation of South-East Asian currencies and stock market fluctuations that occurred in 1997-98 also emphasised the need to develop domestic gas supplies to meet the energy needs as an alternative to relatively expensive oil imports.

With the regional growth in gas supply demand, a number of gas transmission pipelines have recently been constructed or are being planned. A survey by World Gas Intelligence (cited by IEA, 1996) reported that by 1995 some 4,500 km of gas transmission pipelines had been constructed in South-East Asia, and a further 6,000 km of transmission lines was projected to be installed by 2000. Similarly, the number of existing and planned facilities for the export and import of LNG have been increasing rapidly in recent years, in response to improving cost efficiencies<sup>6</sup>. However, the costs of building pipeline infrastructure are considerable, at a cost of around US\$1 million per kilometre to build a 30 inch diameter pipeline, as well as the considerable expense of building associated compressor stations (IEA, 1996). In many cases, the costs of building future pipelines will be beyond the financial capabilities of existing state-owned pipeline operators and this is expected to increase pressure on governments to allow greater private sector participation in the gas transmission sector (IEA, 1996).

New investment opportunities for petroleum companies may also arise in the future once new gas pipeline and associated infrastructure have been installed. IEA (1996)

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<sup>5</sup> Areas of land or territorial sea designated for petroleum exploration and production.

<sup>6</sup> Compared to 1969, liquefaction costs in 1995 were reduced by 60%. It has been estimated that between 1990 and 2000, LNG shipping costs will decrease by about 40%, mainly through larger vessels, new tank designs and more efficient use of space (Roland, 1998c).

suggests that as domestic grids become more widespread they are likely to encourage greater gas production, particularly from smaller fields that are close to the new grids. These are fields with reserves that, on their own, might be too small to justify the construction of the pipeline infrastructure that would be needed to supply the gas to consumers. However, if the infrastructure is already in place then the economics of developing such a field improves significantly. Similarly, the existence of pipeline interconnections between countries in the region could also lead to the possibility of such gas being exported.

*“There will be more large energy projects involving several Asian nations. Companies will increasingly need to think beyond national borders, and a company’s ability to structure international projects will be a plus. Natural gas, the fuel of choice for much of Asia, will challenge oil and coal and cross national boundaries as countries expand their horizons for energy supplies”* (Cambridge Energy Research Associates cited in Crow, 1997a, p. 33).

In this regard, South-East Asian governments are discarding their nationalistic preoccupations and demonstrating a willingness to cooperate and work together. According to Naisbitt (1997, p. 141), *“a decade ago, alliances and cooperation among governments and businesses were unheard of and unthinkable. Much of the integration in Asia today happened in the marketplace - as a direct consequence of demand and supply.”*

In most Asian countries, the initial gas infrastructure was built, owned and operated by vertically integrated, state-owned utilities or companies. These companies had a monopoly over the provision of gas transportation in their respective countries, that is, they imported (or produced) the gas, distributed it and marketed it. However, many of the developing countries, following the earlier trend in developed countries, are now privatising their state-owned petroleum companies in a move to reduce government budgetary expenditure. For example, the Petroleum Authority of Thailand (PTT)<sup>7</sup>, Thailand’s state-owned petroleum company, is currently undergoing corporatisation of

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<sup>7</sup> The *Petroleum Authority of Thailand Act* established PTT on 29 December 1978, as a state enterprise under the supervision of the Ministry of Industry. Its purpose was to function as a fully-integrated petroleum business ranging from exploration, development, procurement, transportation, refining, distribution to other related businesses, and to act as a state mechanism in stabilising national economic and energy security. Between 1 January 1992 and 1 February 1996, PTT was reorganised from a functional to a business-oriented structure. The supervision and management were decentralised to four business units: the Exploration/Production and Gas Sector, the Downstream Oil Sector, the Refining Sector, and the Petrochemical Sector. These four sector groups assumed responsibility for supervision of newly established affiliated companies and subsidiaries including PTT Exploration and Production (PTTEP), PTT Oil, PTT International and PTT Gas. The Head Office retained a strategic leadership role (PTT, 1996).

its management and operations in preparation for public listing, and to reduce its reliance on borrowings guaranteed by the Thai Ministry of Finance. This trend changes the contractual arrangements between private companies and the former state-owned enterprises, and introduces new competitors into the global marketplace.

The global trend towards competition and privatisation is expected to profoundly influence the gas sector over the next 25 years. The major policy objective behind this process is to deliver a more efficient energy sector and lower prices to end-consumers.

In the long term, energy sector analysts suggest that there are three key megatrends that face the petroleum industry. These are: (i) open markets and competition, such as deregulation of the gas market; (ii) technology improvements, which have significantly reduced costs and increased the efficiency of extracting, converting and utilising energy; and (iii) environmental concerns—“*the environment is possibly the most important force shaping the future of energy industries and markets*” (Roland, 1998c, p. 83).

### 4.3 LEGAL-REGULATORY INFLUENCES

#### 4.3.1 Overview

Legislation, regulations and standards have played an important role in the petroleum industry since its inception. US anti-trust legislation that led to the break-up of the Standard Oil Company, and legislative changes that nationalised many of the seven sisters' assets in the Middle East during the 1960s, are notable examples. Over the last 30 years or so, environment, health and safety legislation have also become major commercial factors for the industry.

The current regulatory framework is a sophisticated system of national and international or inter-state regulation of petroleum activities that has evolved over the last 140 or so years since commercial oil exploitation commenced. This framework is typically comprised of *petroleum* legislation, *relevant* legislation and *fiscal* legislation. Taverne (1994) describes these as follows.

The objectives of 'petroleum' legislation are to regulate the conduct of petroleum operations, and to determine the sharing of the petroleum revenues and income between the State and the entity authorised to undertake these operations. Such legislation comprises those statutes and regulations which have been specifically enacted to regulate: (i) petroleum operations (e.g. construction and operation of petroleum installations and pipelines, methods of working, and the health and safety of workers); (ii) the imposition of any specific or special charges or duties on petroleum revenues (e.g. royalties, petroleum profit sharing) and the imposition of tax on income realised from petroleum operations; and (iii) licenses and contracts of work—the authorisations permitting the licence holder or contractor to undertake one or more types of petroleum operation, subject to fulfilling the obligations imposed in the licence or contract. The

competent government authority (usually the government minister responsible for petroleum affairs) grants a licence. A contract of work is usually entered into with the designated state oil enterprise, subject to the approval of the competent authority.

'Relevant' legislation refers to all legislation, other than petroleum legislation, that is relevant to the conduct of petroleum operations. It includes legislation concerning the conservation and protection of the living and non-living natural resources and of the environment generally, as well as legislation concerning the occupation, use and restoration of surface areas. Relevant legislation is typically administered by government ministries and by provincial and municipal authorities and administrations.

Relevant legislation in a host country is often a key determinant of environmental performance obligations for petroleum companies, but typically varies considerably from country to country, and between states in federations. In the US and Australia, there are well-developed systems for the imposition of liability for environmental damage, whereas in many third world countries, there is little such regulation.

'Fiscal' legislation refers to all generally applicable legislation concerning taxes on income and other taxes. Petroleum legislation may restrict or otherwise qualify the application and scope of the fiscal legislation as far as petroleum revenues or petroleum income are concerned and in the context may provide for exemptions, special tariffs, etc.

Petroleum legislation operates in conjunction with relevant legislation and fiscal legislation. An authorisation to undertake petroleum operations under petroleum legislation (through licences or contracts) generally does not imply or guarantee a similar authorisation under relevant legislation. The government agencies in charge of administering relevant legislation will usually apply activity or project-specific criteria, to address issues such as pollution control, access to and use of land, and protection of wildlife. If these agencies refuse to grant a licensee or a contractor the necessary work permits, it is usually not possible for these entities to exercise their rights as granted to them under petroleum legislation. Similarly, operational authorisations granted under petroleum legislation or relevant legislation become meaningless, if fiscal legislation does not allow the licensee or contractor to run a profitable operation (Taverne, 1994).

### **4.3.2 Petroleum Agreements**

Petroleum legislation is country- or state-specific and thus may vary considerably around the world. One of the fundamental differences in approach is in the use of production sharing contracts versus licences or concessions.

### *Production Sharing Contracts*

Commonly, the petroleum legislation of developing countries is based on the establishment of a state-owned national petroleum company and the use of contracts. The purpose-built state petroleum enterprise is assigned responsibility for all petroleum activities and an exclusive licence to obtain and extract petroleum. The foreign petroleum industry (usually comprising petroleum companies based in Western industrialised countries) is only permitted to undertake petroleum activities within the jurisdiction of such countries on the basis of a contract of work to be entered into with its state oil enterprise (Taverne, 1994). These contracts are commonly known as production sharing contracts (PSC), and are characterised by the following features (Taverne, 1994):

- i) The contractor (e.g. a foreign petroleum company that who entered into the contract with the authorised state enterprise) will render technical and financial services and within this framework undertake and finance the petroleum operations described in the contract.
- ii) As compensation for rendering these services the contractor will receive a certain part of any production that might result from its work. If no production is realised, a contractor will receive no compensation for its investments and other services.
- iii) The compensation is partly related to the capital and operating costs incurred and partly representing a profit element. The State and the state enterprise obtain and share the remaining part of the production.
- iv) Investment in exploration and appraisal activities is exclusively for the account of the contractor. Investment in the development of a field is either also for the sole account of the contractor or may be shared with the state enterprise.

Within this framework, onerous state-imposed taxation can inhibit a contractor's willingness to exploit reserves, while favourable taxation regimes can encourage investment. Traditionally those countries with proven petroleum reserves, such as Indonesia and Malaysia, have had the bargaining power to demand more restrictive financial terms in their PSCs (IEA, 1996). Whereas those countries with little or no proven deposits, such as the Philippines, have traditionally offered more lenient terms to attract investment (Valencia, 1985).

Over time, however, there has been a shift away from agreements focusing primarily on fiscal benefits, towards more complex arrangements intended to capture both direct benefits and externalities. Developing countries are interested in the positive externalities of foreign direct investment such as improved technological skills,

management and know-how, induced investment in other industries, the provision of infrastructure and upgrading of the general skills of the workforce. Those requirements are frequently written into contracts, as in Indonesia's later generation of production sharing contracts (McKern, 1996).

Similarly, increased demand for petroleum products and the availability of a wider range of investment locations, has improved the bargaining power of contractors. Traditional PSCs are now also being modified to make investment terms more attractive to foreign petroleum companies (IEA, 1996). For example, in March 1997, Malaysia's state-owned petroleum company, PETRONAS, offered new PSC terms. These included a revenue-over-cost clause to spur new investments in smaller and higher risk areas, with the intention of allowing contractors to recover their investments faster, taking into account increased risks and costs, diminishing prospects and the exploitation of smaller fields. Malaysia is reportedly eager to draw explorers to its deep-water blocks off the coast of the East Malaysian states of Sabah and Sarawak. However, the depreciation of its currency (the Ringgit) against the US dollar during the Asian currency crisis of 1997-98 increased costs of operation (due to reliance upon imported goods and services) and eroded the international competitiveness of Malaysia as an investment location (*Upstream*, 1997b).

### *Licences and Concessions*

The other forms of petroleum agreement, more commonly used in Western countries, are licences or concessions, granted to petroleum companies by the government in a competitive bidding process. The licence entitles the holder to obtain and extract petroleum and constitutes a transfer of title to petroleum if and when produced. The transfer is between the owner of the petroleum *in situ* (in most cases the State represented by a government agency, known as the 'competent authority') and the licence holder (Taverne, 1994). However, like PSCs, licence and fiscal terms may vary considerably between these countries (and from cabinet to cabinet), and thus are an important factor in determining investment preferences by both domestic and foreign petroleum companies.

### *Environmental Protection Provisions*

Statutory environment protection obligations typically have not received the same level of attention in petroleum legislation as fiscal terms. From a survey of petroleum agreements in over 100 developing countries, Gao (1994) found that the agreements have followed a pattern of providing a general principle of, or reference to, environmental protection, but systematic and substantive requirements are absent. The only explicit reference to environmental protection may be a broad-based clause, like:

*“Contractor shall ...carry out operations in such a manner as to cause minimum social and ecological disruption and use its best endeavours to cause no damage to public and private properties. If pollution results from contractor’s operations, contractor shall promptly carry out cleaning operations to the satisfaction of the appropriate governmental authorities and the costs therefore shall not be chargeable as exploration, development or production costs.”*

For example, the PSCs for offshore exploration activities in Myanmar only refer to environment protection requirements in a generic sense:

*“The contractor shall take such precautions for protection of navigation and fishing and the prevention of environmental pollution as are consistent with international oilfield practices”.*

Myanmar’s petroleum legislation (the *Oilfields Act* 1911, the *Petroleum Act* 1934, the *Essential Supplies Act* 1947, the *Oilfield (Workers and Welfare ) Act* 1951 and the *Oil and Natural Gas Concession Law* 1991) also lack any substantive environmental management requirements.

Gao (1994) attributes the lack of environmental protection clauses in petroleum contracts of developing countries to the fact that economic development usually outweighs environmental protection.

*“Both parties to the contract view the environmental obligation as somehow in conflict with their own interests. The producing countries are afraid of scaring away potential investors by imposing strict environmental requirements. The investing companies consider the environmental obligation as an extra burden to exploration cost”* (Gao, 1994, p. 250).

Such vague references to environmental management obligations under petroleum legislation make definition and hence measurable fulfilment of these obligations difficult for petroleum companies. However, Taverne (1994) notes that rules regarding methods of working, abandonment of installations, matters of health and safety and the conservation and protection of natural resources (other than petroleum) and the environment, are often not included in PSCs or licences or concessions, but can be found in relevant legislation.

### **4.3.3 Company-Regulator Relations**

Developing countries are typically keen to encourage foreign investment to stimulate economic growth and employment. Where these countries have limited legal administrative capability, development is often promoted ahead of appropriate regulatory controls. For example, Myanmar is hosting the development of two major offshore gas fields (*Yadana* and *Yetagun*) and associated export pipelines by foreign petroleum companies. However, Myanmar currently has no environmental act as such,

and no legislative requirements for environmental impact assessments of such projects. Developments are managed on a sectoral basis through the regulations and policies of the responsible ministry—in this case, the Ministry of Energy.

The character of the legal framework of host countries is an important influence on foreign investment by petroleum companies, particularly in regard to fairness and transparency, and flexibility exhibited by governments in the implementation of resource policies. Petroleum companies generally consider a supportive bureaucratic and institutional framework to be desirable, e.g. the existence of a major agency with the power to approve and facilitate the implementation of projects, coupled with limits on the individual discretion allowed to officials (Wälde, 1993). For example, in early 1997, Vietnam, in response to petroleum industry complaints of inconsistency and confusion over accompanying regulations for its 1993 *Law on Oil and Gas*, issued formal regulations to clarify definitions of terminology and requirements of the 1993 statute. These new regulations address safety measures, environmental protection, contractual rights and obligations, personnel policies, training, taxation and inspection procedures. Vietnam is also reportedly drafting a law targeted at corruption in its administration. Faced with waning foreign interest in Vietnam's fledgling oil industry, the government is reportedly eager to send a clear message to investors that it is serious about reforming its bureaucracy (Tham, 1997b).

Host government policies (and policy changes) in respect of foreign investment are often determined by dominant interest groups and their perception(s) of national welfare, such as concerns about protecting and increasing their socio-economic prosperity and political stability. The influence of such interest groups may affect activities of enterprises (private or state-owned), fiscality and regulations, competition, and inter-government relations (Mikdashi, 1986). Governments have also increasingly responded to public demands for cutting down on external and social costs, such as health, safety and environmental hazards. Host government prescriptions, therefore, often aim at obliging companies to assume the costs of eliminating or minimising health and environmental damage to society.

In their studies of multinational petroleum and chemical companies (MNCs) operating in China, Taiwan, Colombia and Peru, Moser and Tsai (1998, p. 13) reported that:

*"The experience from both geographic areas indicated that legislators will make an example of MNCs, to provide an indication to the rest of the industry that they are serious about environmental protection. Relative to other types of companies, MNCs are more easily identifiable and likely to comply with any penalties for non-compliance. As a consequence, the regulatory authorities impose their policies upon MNCs, with the intention of inducing the rest of the industry to incorporate responsible environmental business practices. These cases exemplified the strategic manoeuvring of the host governments to derive maximum benefits from institutional conformity."*



The political nature of government decision-making poses a significant business risk for petroleum companies, which they attempt to minimise through lobbying activities. Over the years, the petroleum industry has established numerous national and international industry representative bodies, whose role is essentially to lobby governments to protect the business interests of the industry (Estrada *et al.*, 1997). These industry groups operate as networks to foster sharing information and exchange of ideas. They collectively represent competencies, capabilities and power that goes beyond the attributes held by the individual company members (Boons, 1998; Chisholm, 1998; Roome, 1997). Given recent changes in social and political debate, these groups have increasingly become involved in the field of environment, health, and safety issues, and many of the industry associations have developed codes of practice and guidelines for their members as informal mechanisms to set industry performance standards.

One of the key international industry groups is the Oil Industry International Exploration and Production Forum (the E & P Forum). The E & P Forum is a non-profit-making, umbrella organisation, headquartered in London, that represents the worldwide oil and gas industry before international regulatory bodies. In 1998, the E & P Forum had almost 60 corporate members worldwide, the majority being private and state-owned oil and gas companies operating in 60 different countries. Other members include a number of national oil industry associations and petroleum institutes.

The work of the E & P Forum covers: (i) monitoring the activities of relevant global and regional international organisations<sup>8</sup>; (ii) developing industry positions on issues; (iii) advancing the positions on issues under consideration, drawing on the collective expertise of its members; and (iv) disseminating information on good practice through the development of industry guidelines, codes of practice, checklists, etc. The E & P Forum is currently working closely with the UNEP's Industry and Environment office, to internationally promote the concept of performance-based regulations. Their belief is that such an approach "*has the potential to stimulate more innovative and effective environmental management in all areas of the world*" (E & P Forum and UNEP, 1997).

Petroleum industry organisations have also been established at a national level in many countries. Examples include the United Kingdom Offshore Operators Association (UKOOA), the American Petroleum Institute (API), the Australian Institute of Petroleum (AIP), the Australian Petroleum Production and Exploration Association

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<sup>8</sup> The E & P Forum has observer status as a non-governmental organisation with a number of global and regional regulatory bodies. The organisation works closely with various United Nations agencies, including the International Maritime Organisation (IMO), the UN Environment Programme (UNEP), International Labour Organisation (ILO), and other regional bodies to represent its members' interests in regard to regulating the exploration and production of oil and gas, with particular emphasis on safety of personnel and protection of the environment (E & P Forum, 1998).

(APPEA), the Petroleum Institute of Thailand (PTIT) and the Indonesian Petroleum Association. The extent to which they operate as industry lobby groups varies.

The petroleum industry associations in Australia and the United Kingdom, as examples, have recognised that their members' continued access to sensitive or perceived sensitive marine areas, or areas long claimed by other interests, such as commercial fisheries, now depends on extensive proactive programmes of focussed and co-operative environmental management and stakeholder involvement. In recent years, APPEA, through its Environmental Affairs Committee, has been active in encouraging its members and government agencies to work together in a more cooperative manner to share environmental information and recognise the need to accept and work within a framework of multiple use management of the marine environment, in order to defend the industry's continued access to offshore acreage.

*"We do not believe that this issue [making multiple use happen] is just one for governments, or conservation groups, or industry—it is an issue all of us have an interest in. However, often in our marine areas, industry may be the only presence. In these circumstances, industry can play an important role in management issues that extend beyond its immediate activities. A government presence can be expensive and may be unnecessary if objectives, roles and responsibilities are clear and agreed, with sensible management arrangements drawing on all the interests involved"* (Young, 1995, p. 7).

The Petroleum Institute of Thailand (PTIT) does not view itself as a lobby group, rather as a technical support group. PTIT's mission is as follows:

*"The Institute shall assist in the development and strengthening of organisations, personnel, and facilities throughout the Kingdom of Thailand to meet the needs of the petroleum and petrochemical industries with respect to human resource development; information service; technical service, research and development; policy and regulatory issues ... all this with a view to optimising the benefits to be derived from petroleum and petrochemical industries development in Thailand"* (PTIT, 1998).

The PTIT has produced an *Environmental Code of Practice for Hydrocarbon Development in Thailand*, which focuses on the use of environmental management systems.

*"Through working with the Government, Industry can implement an Environmental Management System that focuses on the key aspects of operations that may impact the environment. This approach will effect the greatest environmental protection at the lowest cost"* (Thailand Upstream Petroleum Industry Task Force, 1996, p. 6).

Nevertheless, the PTIT has coming under increasing pressure from its upstream multinational company members to take a more assertive role in the regulatory debate in Thailand, as it pertains to the industry's interests. The companies have proposed that

PTIT establish new sub-committees to focus more on environmental issues. Unocal Thailand and Thai Shell have been some of the driving forces behind these initiatives. In July 1998 the members appointed an industry representative to facilitate this process, in the capacity of PTIT Project Coordinator and Interim E & P Secretariat. In a discussion document, "*Executive Briefing. PTIT E & P Sub-Committees Development Project*" issued by the PTIT Project Coordinator and Interim E & P Secretariat in June 1998, the E & P industry's plan was elaborated:

*"The Exploration & Production operators of the Kingdom of Thailand have recognised that there is a need to enhance the effectiveness of dialogue between E & P operators and government agencies. The E & P operators, through their PTIT E & P Standing Committee have initiated the development of permanent industry working groups under this Standing Committee to deal with the health, environment, safety, legal and operational issues that are currently facing the industry. These working groups will parallel similar organisations such as NOGEPa in Holland and UKOOA in the United Kingdom."*

One of the first projects of this new initiative is reportedly to gain more involvement in development of legislation to fill existing gaps, such handling and disposal of hazardous materials.

These industry organisations are usually only active within their own national boundaries, but can also be important sources of technical guidance for their members in their overseas operations. Multinationals tend to retain a strong technical link with industry advisory groups in their home countries. For example, US-based companies tend to look to the API for technical standards, while UK-based companies look to the E & P Forum and UKOOA. In other situations, governments have formed strong links with these groups as a source of technical advice. For example, Vietnam has strong links with North Sea petroleum producing countries, like Norway, while Thailand has in some instances sought guidance from Australian and US standards.

Another business risk is associated with host government policies that seek to maximise external benefits from the company operations. The centralised nature of government in many developing countries is such that remote communities derive little or no benefit from state-allocated resources. For example, governments may structure payment terms to optimise their profits (in money or kind) from petroleum production operations for their own vested interests (Mikdashi, 1986). Fiscal terms may require petroleum companies to make significant contributions to national governments in the form of royalties and taxes, but little or none of the financial benefits may accrue directly to local affected communities in the area of operations. This can become a source of local disaffection and conflict with the operating petroleum companies (McPhail and Davy, 1998), as has been the experience of Royal Dutch/Shell in Nigeria, Texaco in Ecuador, and Total and Unocal in Myanmar.

Community concerns about environmental damage and/or incompatibility of petroleum industry activities with other land uses, can result in pressure on governments to reduce or renege on access to prospective acreage. This has occurred in Western Australia where effective community lobbying prevented offshore petroleum exploration proceeding near the Ningaloo Reef, despite the fact that the explorer was operating within its legal licence conditions.

## 4.4 SOCIAL EXPECTATIONS

### 4.4.1 Joint Venturers

Petroleum operations inherently involve high levels of business risk (geological, technical, commercial and political). Exploration and production are also capital-intensive, and in the case of exploration, may produce no investment returns. Hence, petroleum companies usually seek to share the risks and investments with other partners by entering into a legally-binding co-operation agreement with each other, commonly known as a joint operating agreement (JOA). The partners are referred to as joint venture (JV) participants. Such agreements are usually entered into prior to obtaining a licence or PSC, in which case those rights are applied for jointly by the JV. After the award of the licence or contract the JV participants become licensees or co-contractors. A JOA may also be entered into after one of the parties has already obtained a licence or contract—a process referred to as ‘farming-in’ (Taverne, 1994).

The terms of the JOA are negotiated between the partners, on the basis of apportioning responsibility, cost sharing, and financial returns. Typically, there will be a clause in the JOA which provides for the establishment of a management or operating committee (the management committee), comprising representatives from all of the JV participants. This committee decides on matters of policy, supervises the operations and reviews and approves the annual work programmes and corresponding budgets and production schedules as prepared by the entity acting as ‘operator’<sup>9</sup> for the JV. The management committee makes its decisions in unanimity or by majority vote, depending on the importance of the matter in respect of which a decision has to be taken and/or on the distribution of the participating interests, all as stated in the JOA (Taverne, 1994). Joint venture participants can challenge operators where they fail to adequately implement JV

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<sup>9</sup> It is usual for a JOA to contract one person or company to be the operator, to act as the agent of the joint venture. This party can be a participant, a subsidiary of a participant formed for the specific purpose of managing the project; or a corporation formed and owned by the participant to manage the project. Commonly, the operator is the company that holds the majority stake in the JOA (expressed as a percentage). The operator is typically financed either for the joint account of all parties or for the account of one or more but not all parties, depending on whether any particular investment was agreed to by all parties or by less than all parties (Taverne, 1994).

directives and agreed performance standards, unless the operator can demonstrate that practicality or an evaluation of viable alternatives drove their contrary actions<sup>10</sup>.

Perception of risk plays an important role in the conduct of the industry's operations and hence in investment decisions, selection of JV partners, and JV decision-making processes. By entering into JOAs and conducting joint operations, JV participants place the corporation's assets, earnings and staff at risk, as well as incurring liability risk for their actions and those of third parties. Through JOAs, JV participants share legal responsibility for the actions taken by the operator in conducting exploration and production programmes. Where operators fail to comply with statutory requirements, the non-operator joint venture participants can incur significant potential and actual liabilities, depending on the provisions of the relevant laws<sup>11</sup> in the host country (and the home country in the case of some foreign companies).

The majors and large independents typically have adequate financial resources to initiate large projects, but are cautious about where they engage in these ventures, because they potentially put a large asset base at risk. Many of the larger, high profile companies are also concerned about public image and scrutiny by pressure groups. Moser and Tsai (1998) observed increasing social pressure on large foreign companies in developing countries. In their studies of multinational companies (MNCs) operating in China, Taiwan, Peru and Colombia, they found that,

*"... in those countries where legislation appeared weak, MNCs attract the largest share of attention from the 'informal legislators'. e.g. in Peru, local and international NGOs maintain a close eye on the major MNCs undertaking exploration and production activities. Meanwhile, local and non-MNC foreign companies undertake their activities almost unnoticed"* (Moser and Tsai, 1998, p. 14).

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<sup>10</sup> The operator must act in the interests of the joint venture in the course of undertaking day-to-day operations and managing jointly owned property (Slattery and Stammer, 1996). In performing this contractual role the operator must prefer the interests of the joint venture to its own, i.e. they should consider the legal, commercial and reputation interests of the participants and the business activities of the joint venture. The operator also has a duty to disclose information or concerns which may affect the joint venture participants, such as environmental issues, or prompt notification of an incident such as an oil spill which may incur penalties. Further, as an agent appointed by a contract, the operator owes a duty of care to the contract principal, i.e. the joint venture. This is particularly important as the operator controls field activities and manages third party contractors.

<sup>11</sup> Where operational risks cannot be removed by management controls (such as staff and contractor training and supervision, engineering measures, etc.), it is usual for the joint venture participants to share financial risks through indemnification (Ashton, 1992). The non-operator participants indemnify the operator for loss of damage incurred in the conduct of the activity, while the operator may indemnify the non-operators for loss incurred by gross negligence or wilful misconduct of the operator. The chain of indemnity is also usually maintained by apportioning public liability to third party contractors.

Petroleum companies usually apply caution when selecting their JV partners and appointing an operator for the JV. The performance of these partners, especially the operator, can make the difference between a well-run, profitable operation, and a catastrophe. An interviewee from a large independent told this researcher that their process of selecting JV partners involves looking at their mutual interests, compatibility of company policies (including environment, health and safety policies), company objectives and ways of doing business. In some cases they assess their environmental performance records. Past experience and trust also play an important role—they characteristically look at selecting partners they have previously worked with.

Petroleum company interviewees indicated that on-going peer pressure to adhere to performance standards, including environmental management, can play an important role in some JV management committees. The *Gobe* project in Papua New Guinea (PNG) was cited as an example. In this instance, the operator, Chevron, had a well established environmental policy and reportedly insisted that responsible environmental management practices be employed on the project. In the case of the mercury disposal controversy encountered by the Unocal Thailand-operated JV (see Chapter 6), a Unocal interviewee stated that the issue immediately became a key agenda item at management committee meetings and received positive support from the JV participants.

Joint venture participants do not have to be major shareholders to exert their influence on environmental performance. In reference to the *Kutubu* project in PNG, an interviewee stated that BP (20% shareholder) set the environmental performance conditions for the JV to implement. For the North West Shelf Project in Western Australia, the interviewee stated that BP set an environmental challenge for the JV—the company wants the projects to be a leading example of how to operate an LNG facility. In terms of working within joint ventures, the interviewee stated that BP prefers to engage its JV partners to set and agree to performance targets, rather than exercise its JOA voting rights and powers.

By contrast, small independents (and relatively lower profile companies) are often more willing to take relatively large investment risks in small projects, often in remote locations. In some JVs, particularly those comprising small independents or poorly resourced companies, interviewees perceived that environmental issues were often not considered to be of high importance. “*They avoid the issues because they can*”. Non-operating joint venture participants, particularly small companies, or those operating in geographically isolated locations or poorly regulated jurisdictions, may perceive the legal risks to be low and may pay scant attention to the social and environmental management practices of the JV operator, choosing to focus their attention on the up-front financial aspects of the operations (Martin, 1997).

Financial expenditure priorities of state-owned PSC or JV partners can also pose a dilemma for their operating partners. Where the PSC or JV partner is unwilling or

unable (due to other investment interests) to contribute their share of expenditure towards environmental improvements, the petroleum company may need to compromise its performance improvement objectives. For example, in 1998, Royal Dutch/Shell announced that it will have to reschedule earlier promised environmental improvements in its Nigerian operations. The improvements included objectives to reduce disposal of gas through continuous flaring from the current 9 million tonnes per year to 5 million tonnes per year by 2002, and to completely eliminate such flaring by 2008. The reason given was that its Nigerian JV budget was cut by 40% in 1997, owing to funding shortfalls from the government-owned Nigerian National Petroleum Corporation, its JV partner. The company said it "*is clearly a difficult area and provides us with a dilemma we are working hard to resolve*" (Hopson, 1998c).

Peer pressure enforcement of environmental management (and other) practices can be also be constrained by pragmatic considerations. A unique characteristic of the petroleum industry is the practice of forming shifting alliances between petroleum companies, in pursuit of exploration and production opportunities. "*A competitor today is an ally tomorrow. A strategic partner in one market is an adversary in another*" (Crump, 1997, p. 59). As a consequence, companies are sometimes reluctant to criticise the social and environmental management practices of others, in case they suffer the consequences of future reprisals when those companies are a potential partner or competitor.

Joint venture partners may also keep quiet during controversies to protect themselves from adverse publicity. For example, Exxon was a co-owner of the *Brent Spar* oil storage facility. However, during the public outcry over its disposal, "*Exxon ducked its head and left Shell to take the heat*" (Grolin, 1998, p. 216). Similarly, during the PTT *Yadana* gas sales pipeline controversy (see Chapter 6), the JV proponents for the Myanmar component of the project publicly distanced themselves from PTT's handling of the controversy in Thailand.

#### 4.4.2 Shareholders

Companies often argue that their corporate social performance is constrained by market forces and the obligation to return profits to its shareholders in the short-term. As discussed in Chapter 2, corporate governance systems of many Western countries are based on the principle that management is appointed by and accountable to shareholders, who exercise their control by using their voting rights or by disposing of their shares. The criticism is often made that investors are short-termist, and therefore they place management under undue pressure to produce dividends, at the expense of reinvestment in items like equipment, research, staff training and social and environmental management (Rappaport and Flaherty, 1991). As a consequence, it has been suggested that this market pressure is likely to lead to management opting for short-term payback wherever possible (Gunningham, 1994; Maltby, 1997).

Parkinson (1995, p. 99) reviewed the market forces which influence shareholder behaviour in response to company expenditure on its corporate social responsibilities, and found that

*“... in practice managers have some freedom to sacrifice profits in the interests of non-shareholder groups, but they are nevertheless discouraged from doing so by the antagonistic market setting in which they operate.”*

The rationale for curtailing social expenditure due to the risk of negative shareholder reaction, is a defence commonly used by companies based in the US where hostile corporate takeovers are an ever-present threat. A belief that the market demands short-term returns, prompts companies to avoid expenditure that would arguably enhance the company's social performance and be beneficial to the company in the long term. For example, a reputation as a business that is concerned for the environment is likely to bring benefits to the company, yet implementation of the programs that lead to that reputation may be expensive in the short run. Parkinson (1995, p. 100) suggests that

*“Respect for the law may even be eroded under the pressure to boost short-term results. The company might, for instance, engage in bribery to attract business or economise on safety precautions, endangering the well being of employees, customers, or neighbours. The possible costs resulting from prosecution or reputation damage may be dismissed as problems for another day.”*

This concern about the market for control assumes that shareholders' decisions to buy and sell shares are influenced purely by the expected financial return. However, the behaviour of some shareholders, especially ethical investment bodies, may be affected by other factors. A new trend of social and environmental activism amongst shareholders appears to be modifying the nature of shareholder expectations of corporate performance. As observed by Carroll (1996), public companies are now being required to deal with two broad types of shareholders: (i) the traditional shareholder groups that are primarily interested in the company's financial performance, such as large institutional investors like pension funds and many private shareholders; and (ii) growing numbers of 'social activist' shareholders. Specific shareholder actions have been categorised by Carroll (1996) into three overlapping areas: (i) the rise of shareholder activist groups; (ii) the filing of shareholder resolutions and activism at annual meetings; and (iii) the filing of shareholder lawsuits.

According to Parkinson (1995), the market price of a company's shares can be affected by its social record and the market for control might have the effect of bringing management conduct into line with investors' social aspirations, or, at least, might provide managers with some latitude to respect ethical considerations. For example, investors who disapprove of contact with the military regime of Myanmar may refuse to buy shares in petroleum companies with business interests there, no matter how



profitable, or dispose of their holdings even though this may be contrary to their financial interest.

However, it does not seem likely that these effects are currently significant in practice, as ethical investors typically constitute only a small proportion of the market. Parkinson (1995) concluded that it is probably fair to assume that the majority of shareholders are motivated more or less exclusively by financial concerns, especially in the case of the institutional investors who owe this to their beneficiaries. The decisions of ethical investors to sell may accordingly be counter-balanced by the decisions of others to buy shares that may now be perceived as bargains. Similarly, where ethical bodies retain or acquire shares in a company that announces an ethically attractive, but profit-reducing policy, the result is likely to be outweighed by decisions on the part of other shareholders to sell. Despite the presence of ethical investors the direction of market pressure will accordingly be against the adoption of the policy.

*“The reality is that the market for control is a mechanism that aligns management conduct with shareholder preferences and in the absence of an implausible, widespread transformation in shareholder attitudes its effect will be to suppress social initiatives that do not promise to have at least a neutral impact on profits” (Parkinson, 1995, p. 99).*

Nevertheless, there has been a noticeable increase in the incidence of shareholder protest about petroleum companies' performance, in relation to issues like environmental protection, human rights and business dealings with oppressive governments. Shareholder activism is particularly evident in the US and the United Kingdom. Several examples of shareholder agitation at petroleum company Annual General Meetings (AGM) have been cited in recent years:

- i) In April 1994, 14.1% of those present at a Unocal shareholders' meeting called on the company to issue a report justifying its activities in Myanmar (Bray, 1997). The company was also subject, at its June 1998 shareholders' meeting, to protests by the Burma Forum, Project MAJE, Maryknoll Fathers and Brothers, EarthRights International and the Oil, Chemical and Atomic Workers' Union. There were also two shareholder resolutions presented by a representative of the Catholic Foreign Missionary Society of America. One resolution called for a report by a group of outside directors that would inform shareholders of the legal, human rights, media and environmental implications of doing business in Myanmar. The other resolution called for the basing of executives' salary packages on a combination of corporate financial considerations and social concerns (Gilleland, 1998b).
- ii) In 1996, a group of Texaco shareholders put forward a proposal to end the company's operations in Myanmar (Ahmad, 1997c).

- iii) At the 1997 Shell Transport & Trading AGM in London, the company faced a resolution drafted by shareholder, Pensions Investment Research Consultants, demanding that: (i) the company should adopt global standards on environmental and social issues management; and (ii) the company should have independent external environmental and social auditing of all its work (Valebrokk, 1997a).
- iv) In 1998, two proxies were submitted at the ARCO shareholders' meeting—one that would set up guidelines for selecting countries where ARCO can do business, and another calling for an investigation into allegations that state oil company Myanma Oil and Gas Enterprise acts as a conduit for drug running and money laundering. The request for investigations was submitted by both the Burma Forum and the Oil, Chemical and Atomic Workers Union (Gilleland, 1998a).

In most cases, the company shareholder majorities vetoed the protests of shareholder factions. Nevertheless the actions served to highlight the increasing willingness of key shareholder groups to actively express their concerns about corporate social responsibilities. Although such groups are currently vocal minorities, the media and the Internet have assisted to give them a global profile.

#### 4.4.3 Public Interest Groups

Third party interest groups, such as environmental NGOs and human rights campaigners are using advances in global communications to promote their challenges to the industry. Extensive media coverage of local and global environmental issues is reinforcing the political potency of environmental NGOs. Concerted international campaigns by large NGOs like Greenpeace and Amnesty International, attempt to pressure the industry to change its strategies on extraction of non-renewable resources, and take more responsibility for protection of indigenous communities in their areas of operations.

The global nature of environmental concerns and treaties and the debate about the overall sustainability of fossil fuel-based energy futures is also being used as the basis of Greenpeace's 'No New Oil Campaign' (Tham, 1998b). Radical factions of the environmental NGO community have mobilised to question and block further exploration of petroleum resources. Even if not representative of the overall environmental movement, the perceived need to plan today for a rapid transfer from fossil fuels to renewable alternatives is gaining hold in broad segments of international political opinion (Roland, 1998d). BP Amoco ARCO and Royal Dutch/Shell have acknowledged this trend and established business units that are now developing solar energy technology.

The media also plays a role in lifting the profile of environmental concerns. They commonly now treat local environmental problems, such as oil spills, as issues that

concern the international audience. Some NGOs capitalise on such images, translating global threats into salient local political challenges and bringing local violations firmly into the international spotlight. Royal Dutch/Shell's heated controversies with NGOs over what to do with the *Brent Spar* storage buoy, and Shell's presence and political responsibilities in Nigeria exemplify the recent changes in global influence patterns. The Nigeria example also demonstrates the extent to which environmental concerns and social and political concerns are mutually reinforcing—bringing a growing number of complex cases to the attention of corporate boards (Bray, 1997; Roland, 1998d).

Concerns about questionable social and environmental performance by foreign companies are also being used to launch legal action by third parties in their home countries. Cameron and Ramsay (1996) note the increasing occurrence of litigation in which a corporation is sued in its home jurisdiction on the basis of allegations of environmental harm arising from the corporation's activities in a foreign jurisdiction.

For example, lawsuits over environmental and social concerns have been filed against petroleum companies in the US in regard to their involvement in Myanmar. At the time of writing, Unocal is facing a lawsuit in its home state of California, in relation to the company's involvement in construction of the Yadana gas sales pipeline. The lawsuit was filed in September 1996 by the exiled National Coalition Government of the Union of Burma (NCGUB). The NCGUB has claimed that construction of the Yadana pipeline in south-east Myanmar involved repressive acts by Myanmar army acting on behalf of the ruling government junta, the State Peace and Development Council (SPDC) (formerly SLORC). SPDC is responsible for protecting the pipeline right-of-way and is engaged in armed conflict with nearby ethnic minority groups. Among the charges—denied by the companies involved—critics claim forced labour has been used on the onshore segment of the pipeline, and that entire villages have been relocated to accommodate pipeline routing. The NCGUB has accused Unocal of accepting the support of the Myanmar military government knowing that the authorities would be engaged in human rights abuses on its behalf (Bray, 1997).

Another 'class action' lawsuit for alleged human rights abuses in Myanmar was filed in the California federal court in 1996, against Unocal and Total, by Thailand-based group EarthRights International and the New York-based Centre for Constitutional Rights on behalf of 14 Burmese citizens. EarthRights contends Unocal and Total are legally responsible for alleged abuses by the SPDC because the project could not have gone ahead without the participation of the two oil companies. Therefore the SPDC was essentially acting as a contractor to Total and Unocal. Also named in the lawsuit are Unocal Chairman Roger Beach and President John Imle, because they are believed to have had personal knowledge of the effects of partnership with a military dictatorship known for its history of human rights violations. The plaintiffs are seeking compensatory damages, punitive damages and an injunction barring Unocal from operating in Myanmar (Gilleland and Hopson, 1998). This suit is of particular interest

because, while a US judge has ruled that the US courts have the authority to adjudicate violations of human rights law in other countries, it has yet to decide whether Total, a French company, falls under US jurisdiction (Gilleland and Hopson, 1998).

While such lawsuits may not be successful, they can nevertheless cause companies to suffer the consequences of adverse international publicity and incur significant financial costs. A notable example is the legal action taken against Texaco over contamination in the Ecuadorian Oriente region of the Amazon River basin<sup>12</sup>. Texaco has argued that it has fulfilled its legal obligations, and while Texaco's conformity with the then law of the country may strengthen its legal position, the laws have not been sufficient to protect it from accusations of environmental irresponsibility. The legal battle inflicted heavy costs on Texaco, in terms of adverse publicity, financial costs and management time (Bray, 1997).

#### 4.4.4 Home Country Policies

Third party resistance to petroleum company activities can also come via home country foreign policy. Sanctions and embargoes have become levers for influencing foreign governments and denying access to companies. The US National Association of Manufacturers found that between 1993 and 1996, the US enacted 61 laws and executive actions authorising unilateral economic sanctions for foreign policy purposes against 35 countries (Crow, 1997b), thus constraining US investment in these countries.

John Cheatham, then President of US-based ARCO International Oil & Gas Co., was reported by Crow (1997b, p. 40) to say:

*“With international growth, ARCO is learning to manage a new set of risks associated with governments and business environments very different from the US. What's more,*

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<sup>12</sup> Oil production by US companies commenced in this region in 1967, without any formal environmental impact assessment, and very little regulatory control. In 1972 Texaco and Petroecuador (the state-owned oil company) commissioned a 312 km oil pipeline through the region. Texaco operated the pipeline. Over the next 17 years, it was alleged that the pipeline ruptured at least 27 times, spilling 16.8 million gallons of crude oil (as compared with the 10.8 million gallons spilled by the *Exxon Valdez* oil tanker in Alaska). In addition, untreated wastes and leaks from secondary flowlines had reportedly been discharged into the catchment on a weekly basis. This acute contamination was linked to neurological disorders and birth effects in the local indigenous communities (Kane, 1995).

For political and commercial reasons, the Ecuadorian government was apparently unwilling to prosecute, but in 1993 an Ecuadorian lawyer and a US law firm filed a US\$1 billion civil suit against Texaco in New York, on behalf of the local indigenous community. The points at issue were the scale of the pollution, and the extent of the company's responsibility (Bray, 1997). The suit was brought in Texaco's home country because the plaintiffs were not expected to receive justice in an Ecuadorian court (Kane, 1995). The US judge dismissed the suit in November 1996 on the grounds of inappropriate jurisdiction.

*we must come to grips with an added layer of uncertainty created by US government policies toward countries where we invest. Managing the complex risks associated with overseas host governments and the added dimension of risk created by US foreign policy is the most difficult part of international growth”.*

In April 1997, the Clinton administration banned further US investment in Myanmar in protest against human rights abuses by its military regime. The European Union's (EU) Council of Ministers also suspended EU tariff preferences for Myanmar in March 1997, to protest against the government's failure to make progress towards advancing democracy and human rights (Crow, 1997b).

In response to the US sanctions on Myanmar, Unocal President John Imle was reported by Crow (1997b, p. 40) to say:

*“Historically, unilateral sanctions have proved to be ineffective. During our 30-year history in Asia, we've seen that responsible foreign investment is the most effective way to promote long-term economic and social development in countries throughout the region. We are concerned the [US] administration's action may impede, rather than advance, these developments in Myanmar”.*

Dick Cheney (former US Defence Department Secretary), speaking as Chairman, President and Chief Executive Officer of the major oilfield services company, Halliburton Co., has predicted that the US Congress will continue to impose sanctions on oil producing countries until the industry takes a “proactive approach” to battle the trend. *“When prices are low, lawmakers feel free to use oil as a sanctions weapon.”* Oil and gas companies must explore where the reserves are, and that means doing business in countries that may have policies that the US does not like. *“The long-term horizon of the industry is at odds with the short term nature of politics. The US government needs to extend its horizon and avoid quick, light-switch diplomacy”* (Cheney cited by Crow, 1997b, p. 44).

In defence, William Ramsay (US Deputy Assistant Secretary of State for Energy, Sanctions, and Commodities) stated that the public and stockholders are increasingly vocal about whether US companies operating abroad are contributing to, or detracting from, protection of human rights, the environment, and other “non-business considerations” (cited by Crow, 1997b, p. 42). He reportedly believes that sanctions can be effective, demonstrate US leadership, show US disapproval of certain actions, are perceived as a “low-cost” option, and *“they certainly meet the need to do something visible.”*

However, Ramsay also reportedly admitted that sanctions are not actually low-cost and can lead to bad business relations and eventual exclusion of US firms from markets (Crow, 1997b, p. 42). For example, the Myanmar government has publicly stated that it will favour investment from nations that do not support such sanctions. The Prime

Minister of Malaysia, Dr Mahathir Mohamad, has worked to improve relations with the military regime of Myanmar, despite repeated warnings from the US. Dr Mahathir was the most vocal supporter of the country's successful entry into ASEAN<sup>13</sup> in 1997, and reportedly believes that more economic involvement with ASEAN will prompt Myanmar's State Peace and Development Council (formerly known as SLORC) to adopt internationally acceptable forms of governance (Tham, 1998a).

In return for this 'friendship', the Myanmar government indicated that it would award all future oil and gas concessions to South-East Asian companies. According to Ahmad (1997c), Ohn Gyaw, an aide to Myanmar's Foreign Minister, said that Myanmar's decision was made after it was accepted into the ranks of ASEAN "*as a friend despite our different political beliefs and pressures from the West and the US*". Ahmad (1997c), also reported that U Kyaw Nyein, Managing Director of state-owned petroleum company, Myanma Oil and Gas Enterprise, said that Thailand's PTT, Malaysia's PETRONAS and several independent Indonesian companies were among the companies that will be offered exploration acreage. U Kyaw Nyein reportedly also added that even US and European companies presently operating in Yangon would not be considered for future exploration rights, because "*we trust our South-East Asian brothers more.*" PETRONAS, has subsequently been successful in acquiring Texaco's stake in the *Yetagun* gas field and the Malaysian company, Dtatran Isibumi, was awarded four Gulf of Martaban concessions.

Britain also has not endorsed the US sanctions on private investment in Myanmar. Investment figures released by the Myanmar Embassy in Singapore indicate that Britain ranked highest in investments in Myanmar for 1997, with 29 companies contributing US\$1.32 billion<sup>14</sup> (Ahmad, 1997d). A British Foreign Office spokesman was reported as saying: "*... we cannot dictate how companies conduct themselves commercially, even in countries with bad rights records.*" The UK government reportedly has no plans to impose sanctions in Myanmar, as it believes these can cause real hardship to the population while having very little effect on the regimes in place. The spokesman stated that the UK government will continue to provide practical help and financial support to companies wishing to operate in Myanmar or attend trade missions there (Battersby, 1998b).

For British independent petroleum company, Premier Oil plc., the US investment sanctions created an opportunity to support one its key business strategy objectives, i.e.

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<sup>13</sup> ASEAN (the Association of South-East Asian Nations) is a regional economic grouping that currently includes Brunei, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

<sup>14</sup> Singapore ranked second with US\$1.22 billion and Thailand was third with US\$1.13 billion (Ahmad, 1997d).

to develop its Asian gas portfolio. In late 1997, the company took over operatorship of the *Yetagun* gas/condensate field development from US-based Texaco, when it withdrew from Myanmar in response to US stakeholder protests against its involvement in the country. Myanmar is now viewed as one of the Premier's promising investments (*Oil & Gas Journal*, 1997c).

#### 4.5 CULTURE AND CORPORATE ETHICS

In their capital-intensive, but often unsuccessful, quest to discover viable hydrocarbon reserves and favourable development terms, upstream petroleum companies may enter and exit countries or particular geographic areas over a relatively short period. An operational environment characterised by this combination of high risks and high rewards, and constant change, has helped mould the culture and business practices of these companies, and influenced their attitudes towards corporate social responsibility. One characteristic of which, is a tendency towards short-term views on externalities, like social and environmental issues.

Many of the independent petroleum companies specialise in exploration, often in remote locations. Their business strategy is to find viable reserves which they can later develop with farm-in partners, or divest their interests to a major petroleum company. Since geology is paramount to these explorationists, they may be less concerned with broader social, political and environmental issues. Small independent companies in particular, appear to tend to take the approach that if the resources are present, political problems will be resolved at a later stage, with the assistance of their partners. If the geology is acceptable, political and security risks are typically seen as challenges rather than obstacles that deter investment. According to Premier Oil plc. Director, Richard Haythornethwaite,

*"There are an amazing number of opportunities where people's understanding is that they are not attractive. ... The industry moves as a herd—we operate to one side and find countries before them." Premier invested in Pakistan in the late 1980s, "when Pakistan was seen as a pariah both politically and technically. Now it's desirable"* (Haythornethwaite cited in *Oil & Gas Journal*, 1997c, p. 34).

Major companies are often more sensitive than smaller independents, to the need to protect their international reputations, but the attitudes of individual companies are influenced by their origins and values (Hastings, 1999; Moser, 1998). To illustrate, subsidiaries of multinational companies are often found operating in developing countries with questionable social policies. Critics argue that if a multinational invests, or has prior investments, in a developing country with questionable human rights and democratic records, it has an ethical responsibility, given its size and power, to pressure the relevant authorities for democratic reform and respect of civil rights (Moser and Miller, 1997). However, petroleum companies often take a pragmatic stance on these issues. They argue that petroleum resource development projects take several years and

major financial investments before they come into production, but once they do so, they may continue to yield dividends for 10 to 30 years. While other industries (e.g. clothing or beverage manufacturers) may withdraw relatively easily if unwelcome government policies or unpopular political leadership changes take place in a host country, the scale and term of investment made by petroleum companies generally makes them reluctant to pull out. This necessarily long-term approach is often poorly viewed by human rights campaigners and other opponents, who may interpret this reluctance to withdraw as evidence of lack of ethical principle.

For instance, many critics suggested that Royal Dutch/Shell should have intervened in the case of Ken Saro-wiwa in Nigeria, or at a minimum should have terminated their operations (as Pepsi did in Myanmar). Multinational companies have in turn responded that, while they have a duty to behave in an environmentally and socially responsible manner, they have neither the power nor the internal mandate to influence broader political change. In an October 1996 speech, Royal Dutch/Shell Chairman, Cor Herkströter referred to the company's challenged involvement in Nigeria:

*"Various lobby groups, mainly here in Europe, say that Shell is somehow responsible for recent political events in that country. They point to our significant economic role there and say that we should use the perceived power that role gives us to mould events in that country. When we say that we do not have the power - they simply do not believe us" (Herkströter, 1996).*

Partly out of self-interest and partly out of a natural pragmatism, companies often favour constructive engagement with difficult host governments. They argue that confrontation is not feasible because their attempts to influence political processes, however well intentioned, can be interpreted as undue interference in the country's sovereign affairs and they may be expelled if they step outside the terms of their commercial licence. They also contend that, if they do not themselves invest in a country, other lower-profile and potentially less scrupulous companies—which may be less sympathetic to human rights concerns and may have lower standards in other areas—will then move in (Moser and Miller, 1997; Bray, 1997).

Unocal is one of the strongest US advocates of constructive engagement. Unocal executives have on several occasions testified to US Congressional committees, arguing that the company's influence is benign. Unocal believes that if it withdraws from Myanmar, it will be replaced by another oil company, most likely from Asia, which may have lower performance standards (Bray, 1997). Similarly, a spokesperson for ARCO,



operator of two exploration blocks in the Andaman Sea<sup>15</sup>, reportedly said that the company did not consider that it should be obliged to withdraw from Myanmar,

*“First, we adhere to and obey US law and our pre-existing investments are fully legal. Secondly, Arco does not believe in unilateral sanctions. By remaining in the country, we can have constructive engagement to reinforce our ethical and business standards and do some good for the people of Burma”* (Gilleland, 1998a).

Petroleum company executives sometimes claim that their activities are apolitical. In regard to his company’s controversial investments in Myanmar, Premier’s chief executive Charles Jamieson said: *“We have to be apolitical. We believe constructive engagement does lead to the development of a country for all its people.”* He said the company has a dialogue with the UK-based Burma Action Group, and is spending more than US\$300,000 over a three-year period on “socio-economic projects” that would benefit 20,000 local people (Battersby, 1998b).

Bray (1997, p. 29) argues that *“there is no doubt that companies are political actors: the main questions concern the scope of their ‘mandates’; the extent of their power in particular situations; and the manner in which they exercise it”*. For example, French oil company Total has embarked on an aggressive drive to expand its global oil and gas production, taking it into politically sensitive areas closed to many of its larger rivals. According to Total Exploration and Production President Daniel Valot,

*“It is deeply rooted in French culture that we do not believe the best way to reduce tensions in the world is to put the bad guys in a ghetto and humiliate them—instead, it’s to establish a relationship with them.”... “Who can say what type of government will be charge of Burma in the near future? However, we are not like a manufacturing company that can easily quit. We are a long-term industry that has to plan years in advance.”*

*“... Although we have been very heavily criticised for our involvement in Burma, Iran and Libya, when you sum up the maximum production we will get from these three countries, they will account for less than 10% of our worldwide output so we are getting a lot of noise for something that is not that big”* (Hopson, 1997d).

Valot is also reportedly resolute in his defence of Total’s involvement in the controversial US\$1 billion *Yadana* gas project in Myanmar, which he has described as the “perfect project”—on time and within budget (Hopson, 1997d).

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<sup>15</sup> Nevertheless, shortly after announcement of the US sanctions, ARCO decided to reduce its investment interests in Myanmar. The company negotiated with Malaysia’s state-owned Petronas to take over operatorship and most of its stakes in Myanmar blocks M7 and M9, in exchange for the majority of stakes held by exploration subsidiary Petronas Carigali in the Malaysia-Thai JDA (Ahmad, 1997b).

*"It is the part of the world where Total is carrying out the job I am most proud of. Nobody will make us feel ashamed of what we are doing. ... Total has spent around \$2 million a year on a social programme providing new clinics, schools, farms and many other amenities for local communities. We have only hired volunteers who have been very decently paid by local standards—some 30% more than local wage rates"* (Hopson, 1997d).

Other problems can arise when governments allow local communities access to the infrastructure (roads, ports, etc.) originally built by the petroleum industry for its own operations. This has proven to be an ethical problem for petroleum companies in parts of Papua New Guinea, Indonesia and other developing countries, where illegal loggers and other illicit businesses subsequently use their access roads for their own purposes.

Petroleum company entry into remote locations can also present ethical dilemmas with regard to their relationships with local indigenous communities (Hastings, 1999). A Mobil-led JV (Mobil (33.4%), Exxon (33.3%), and Elf (33.3%)) encountered protests from environmental and human rights groups after discovering previously uncontacted Indian tribes in its search for oil in the Peruvian jungle. Peruvian social activist groups (Asociacion Interetnica de Desarrollo de la Selva Peruana, the indigenous people's lobby Comision de Emergencia Ashaninka and the human rights group Asociacion Pro-Derechos Humanos) have protested against Mobil's exploration and production plans. They reportedly claim the tribes could be exterminated as they lack resistance to Western diseases, and they want the Peruvian government to guarantee "the right to life of uncontacted indigenous" as laid out in Convention 169 of the International Labour Organisation (Lewis, 1997).

From Mobil's perspective, the project is of key importance to its future strategy for working in environmentally sensitive areas. It is considered to represent a benchmark project for Mobil precisely because it penetrates sensitive tropical rainforests and indigenous tribal habitats. Cynthia Thetra of Mobil Exploration and Producing Peru reportedly said:

*"We are doing the best that a responsible company can do. ... We are aware of the possible consequences so we are taking each and every measure to avoid contact. ... This project is so important because it goes beyond the borders of this country and beyond these times. It is something for the future. ... Even if we don't find oil or gas this will be used as a model for us"* (Lewis, 1997).

#### 4.6 LEADERSHIP AND COMPANY PERFORMANCE STANDARDS

Petroleum companies take pride in their ability to operate and make a profit in physical conditions which would deter other industries, but the qualities required to meet physical challenges are not the same as the skills needed to address social and political difficulties (Bray, 1997). Skilful and often very expensive engineering may solve

logistical problems, but social and environmental management problems demand a more interdisciplinary and openly consultative approach. Amongst the majors, British Petroleum (now BP Amoco) and Royal Dutch/Shell have emerged as industry leaders in these aspects.

BP has its origins as the British state-owned oil company, which was subsequently privatised. It has undergone an internal renovation from a civil service culture where managers had a decisive influence, to emerge into a tough, competitive business with a modern image, where environmental excellence is a key ingredient. The tendency to reveal detailed information, set qualitative targets and use highly visible public relations techniques fits well into this context (Estrada *et al.*, 1997). Sir John Browne, Chief Executive Officer of BP Amoco has emerged as a strong and vocal advocate of corporate social responsibility:

*“No company can be really successful unless it has the capacity to keep using its skills and to keep expanding its business. Of course, that requires a competitive financial performance. But it does require something more, perhaps particularly in the oil industry. ... Real sustainability is about simultaneously being profitable and responding to the reality and the concerns of the world in which you operate. We’re not separate from the world. It’s our world as well”* (Browne, 1997).

Browne spoke at his company’s annual general meeting in April 1998 about “*a new BP*” which, while setting itself tougher financial goals, will focus on the “*environment and human rights in terms of ethical standards and employment policy*” (Valebrokk, 1998b). BP overall goal is “*to do no harm or damage to the natural environment*”. According to Browne (1997), the corporation’s method is to focus on one item at a time, to identify what can be delivered, and to establish monitoring processes and targets as part of the corporation’s internal management system and to put in place an external confirmation of delivery. In most cases, Browne states that the company has been able “*to go well beyond the regulatory requirements.*” For example, in the North Sea,

*“We’ve gone well beyond the legal requirements in reducing oil discharges to the sea. And now at our Hound Point crude oil export terminal in Scotland, which handles 10% of Europe’s oil supplies, we’re investing \$100 million to eliminate emissions of volatile organic compounds (VOCs). These VOCs would themselves produce CO<sub>2</sub> by oxidation in the atmosphere. No legislation has compelled us to take that step; we’re doing it because we believe it is the right thing to do. Now, as well as continuing our efforts in relation to other greenhouse gases, it is time to establish a similar process for CO<sub>2</sub>”* (Browne, 1997, p. 16).

Browne has become a vocal advocate of the need for constructive action to be taken by the world’s governments to combat climate change. An interviewee from BP indicated that by tackling the petroleum industry on greenhouse/climate change, the company has chosen to break away from the pack, despite strong opposition from big oil companies,

the steel industry, and the automobile industry, especially in the US. The next challenge for BP was perceived to be human rights—to address external criticism of the industry on this issue. The interviewee indicated that BP's aim is to stay distinctive—to be the first to set and meet targets and therefore the first to gain the financial benefits. Other benefits are perceived to be encountering less aggression and opposition to activities, do business more easily and smoothly.

The corporate environmental strategy initiatives of BP (now BP Amoco ARCO) have been well received by both industry and environmental activists. Chris Rose, Greenpeace's deputy executive director was reported as describing Browne as "*the most progressive chief executive of the oil majors*" (Hopson, 1997c).

Royal Dutch/Shell has been widely regarded by managers as a 'model' multinational in terms of its business management skills. The corporation has been praised for its decentralised structure, its consensus approach to decision making, and its explicit philosophy of social responsibility (Neale, 1997). However, as observed by Valebrokk (1997c), "*Shell has traditionally been a most conservative company that likes to say as little as possible, even when faced with difficult political situations such as the one in Nigeria*". A Royal Dutch/Shell company interviewee described it as a conservative company that is not keen to be an innovator—it prefers to "*follow the pack, or at least follow the leader, rather than be a leader*".

Soon after BP announced its position on greenhouse gas emissions, Royal Dutch/Shell followed in its footsteps by acknowledging the need for action to prevent changes to the world's climate. This example highlights the dynamic nature of corporate decision-making in response to on-going analyses of the external operating environment. Estrada *et al.* (1997) reported an empirical case study analysis of Shell Group and concluded that the organisation had an apparent "self-confident" attitude to its corporate social responsibility:

*"It does not need to underline being a 'world leader' nor to respond to demands for overall quantitative information and targets. It can safely leave responsibility for environmental performance, reporting and lobbying to its operating companies, thereby reinforcing the diversity of the Group. If Shell had chosen a particular line in its environmental policy, it would have run the risk of committing its future to a definite trend. When it leaves room for national variation in response according to political and cultural setting, the Group deliberately stimulates corporate diversity. In line with modern ecology, Group managers are well aware that this reduces vulnerability and increases the chances of survival. Unlike all the other companies, Shell also has the advantage of playing different roles on the American and European scene—funding anti-environmental groups, like the Global Climate Coalition, in the USA, while talking a more lax position in Europe"* (Estrada, *et al.*, 1997).

Estrada *et al.*'s study did not mention the *Brent Spar* incident, so it assumed that the research was completed (albeit not published) prior to that incident. Clearly, events subsequent to Estrada *et al.*'s research caused Shell to rethink its approach, and quickly take action to rescue its business reputation. Neale (1997) observed such change in his study of the *Brent Spar* dumping incident. He concluded that both Shell's actions and the public statements of its managers suggest that some form of double-loop learning<sup>16</sup> occurred within the company during the course of the controversy—the strength of opposition to the dumping plan brought about not only a reversal of the decision, but a re-think of the cultural assumptions on which it had been based. This was associated with a move from groupthink to translation, based on a recognised need to win allies for environmental innovation<sup>17</sup>.

Shell has recently been taking active steps to implement the lessons learnt from its past controversies. In regard to its proposed *Camisea* gas development in the isolated and biodiversity-rich south-western jungle of Peru, Shell Peru's reported aim was "to produce a textbook project that it hopes will avoid the widespread protests it faced over Nigeria and the *Brent Spar*" (Hopson, 1998a). A Shell Peru spokesperson was reported as saying:

*"We have approached more than 200 non-governmental organisations in Peru and internationally to ask what they would like to see from the project. ... The industry has made mistakes in the past and Shell has had its share of difficulties. This consultation process involves a leap of faith for many within the company"*<sup>18</sup> (Hopson, 1998a).

Strong corporate leadership can be highly influential in setting company environmental performance objectives and standards of operation. However, the extent to which responsible environmental practices are driven by corporate management appears to depend upon how social and environmental business risks are perceived by senior management.

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<sup>16</sup> Double-loop learning describes situations where error correction requires correction of the identified problem as well as changes to the organisational norms. As described by Argyris and Schön (1978, p. 22), double-loop learning entails "a double feedback loop which connects the detection of error not only to strategies and assumptions for effective performance but to the very norms which define effective performance."

<sup>17</sup> Although in this case, the change was forced by Greenpeace's actions, customer boycotts, and pressure from continental governments, rather than evolving, either from an internal learning process or from 'appropriate communication' with stakeholders.

<sup>18</sup> As part of the extensive consultation process, Shell Peru held workshops in London, Washington and Lima in an attempt to inform pressure groups how it is looking to operate the *Camisea* project. Included in discussions at the meetings were issues of native rights, protecting isolated peoples, the move to sustainable development, security and protection of facilities and controlling access to the region.

In many cases companies begin to develop an innovative strategy as a means to reduce uncertainty in the face of unpredictable or destabilising actions by the government or environmental pressure groups. For example, Barrett (1991) reported that some companies have moved beyond compliance, in anticipation of future legislation and have converted what might have become legislation into voluntary codes of conduct.

*“Such a strategy enables a company to minimise the disruption caused by complying with new regulations, and to seize market opportunities ... by spending now, one avoids having to spend much more at a later stage, e.g. Shell UK has started incinerating all its solid waste in accordance with US legislation, in anticipation of similar legislation in Europe in the near future”* (Bhargava and Welford, 1996, p. 25).

Another example is Chevron Corporation's Policy 530<sup>19</sup> for safety, health and environment worldwide and its associated Protecting People and the Environment implementation plan. A driver for this policy and implementation plan was *“the public's ever increasing emphasis on health, safety and environmental protection”* (Chevron, 1995). According to Bob Common, then Managing Director, Chevron Europe and Middle East (cited by Anon., 1995):

*“Anticipating and responding to society's heightened expectations has become a condition of doing business that ranks as one of the most critical challenges.”*

Company managers may also construe a strategic competitive advantage in lobbying for strict environmental legislation if they know that their competitors will be unable to comply with its requirements without incurring significant financial costs (Barrett, 1991; Tsai and Child, 1997).

Estrada *et al.* (1997) reported an empirical case study analysis of the environmental strategies of five major petroleum companies: the Royal Dutch/Shell Group, Exxon, British Petroleum plc, Amoco and Statoil. Of these, Statoil was the only one to conform to their description of managerially driven company. Its owner, the Norwegian State, does not exert the kind of financial pressures that shareholders normally do. All the other companies they studied were perceived to be to a large extent financially driven. Estrada *et al.* (1997) suggest that this explains why Statoil has been able to take a long-term view of its strategic investments, including costly environmental components, in its refineries. By contrast, Exxon was perceived by Estrada *et al.* (1997) to be an environmental laggard, preoccupied with short-term profits and suffering from the

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<sup>19</sup> As part of this plan, Chevron UK introduced new cradle-to-grave waste handling procedures for its *Ninian* and *Alba* production fields in the North Sea. The new procedures were reported to save the company an estimated £35,000 per year (40% of previous waste handling costs), and enabled the company to more accurately forecast disposal quantities, set reduction targets, and share ideas and techniques with other business units (Chevron UK, 1995 cited by Anon., 1995).

*Exxon Valdez* accident, which, it was suggested, may explain its introversion. Unlike many other companies it does not publish regular environmental reports and seems to rely more on anti-environmental lobbying than the others, as witnessed by its active involvement in industry lobbying to stimulate uncertainty about the science of climate change.

Distinctively different management strategies may also be evident within the affiliated companies of a single organisation, according to the specific nature of their businesses and perceived business risks. Differences in perceptions of environmental, social and political risk may also arise at different management levels within corporations. The perceived or actual attitude of companies towards the environment is most commonly considered to be represented by the verbal and written rhetoric of the corporate management, and the actual performance of the company in the field, however, these are not always closely aligned.

An example of this gap between stated intent and reality (espoused theory versus theory-in-use) is evident in a case study of the publicly stated environmental policies of some corporate, divisional and operating unit levels within the petroleum companies, Shell and Texaco. Ketola (1997) reviewed the written environmental policies and compared them with the actual practices of the business units, using the theoretical rationale that environmental policies could be used to “*link strategic visioning and planning*” and “*also communicate the environmental goals of a company and the means to reach those goals*”. Ketola found that:

*“All in all, the integration and co-ordination role of environmental policy is hardly fulfilled by Shell and Texaco. Texaco Pembroke ranks best in terms of the integration and co-ordination of environmental policies and business goals, and the Shell Group in the area of business strategies. Otherwise, there is little integration or co-ordination between environmental policies and business goals or strategies in Shell and Texaco”* (Ketola, 1997, p. 31).

Many of the large petroleum companies operate through small branch/in-country offices or affiliated companies. In these situations, the company’s incumbent country manager may wield considerable control over how the company’s business is conducted in that location. Moser and Tsai (1998) observed the influence of pressure to comply with local norms.

*“Although a number of MNC environment managers in both case study areas stated that their corporate policy was to comply with their own internal policies, unless local legislation was more stringent. In reality the research suggests that of the two competing isomorphic pulls, whatever the context of the operation, local legislation is the most important determinant. ... Unless MNC subsidiaries align with the local institutions, they risk losing their licence to operate. This is not the case if MNC*

*subsidiaries fail to align themselves with their headquarters” (Moser and Tsai, 1998, p. 16).*

The holder of that position can also positively or negatively influence the environmental performance of the company, depending on their personal aspirations and how they perceive risks for their career paths. Clark (1993) has observed that firms at the leading edge of innovation and environmental enhancement in the minerals industry seem to share a common set of values, which can be thought to derive from shared cultural and professional backgrounds, as well as shared experiences inside and outside the firm. Clark suggests that for many managers, career promotion depends upon their industry reputations; the small numbers of workers in the industry contributes to a sense of shared identity. However, in small minerals firms dominated by owner-managers, Clark believes there are reasons to be sceptical of the internal resilience of a pro-environmental culture. *“The putative micro-economic efficiency of combining the principal (owner) and agent (manager) may translate into an over-whelming personal interest in maximising short-term income and maximising long-term wealth.”*

An interviewee (‘X’), with over 20 years’ of professional experience in the upstream petroleum industry in Australia and Asia, suggested that there are essentially three main ‘types’ of country manager in foreign companies operating in the region:

- i) Those who are on short-term or temporary managerial postings to gain experience, as they progress along rapid career advancement paths. These managers have only a passing interest in the environmental performance of the local operation.*
- ii) Those who have been side-lined in their careers and may have cynical and disinterested in environmental performance objectives.*
- iii) Those who, through training and/or long-term experience, recognise the environmental implications of their business actions, and hence take a professional interest in environmental management.*

Associated with these character types, the interviewee has observed a range of behavioural patterns in terms of compliance with environmental laws and corporate environmental management policies:

- i) Those who comply because they fear the personal implications of something going wrong.*
- ii) Those who acquiesce and comply, but have no real personal interest in the objectives or actions.*
- iii) Those who comply and take an active interest in environmental management, because they see practical benefits for the business.*



- iv) *Those who do not make any particular effort to comply because they do not fear being caught, or have made "protection payments" to influential individuals in government circles.*

From a corporate influence perspective, interviewee 'X' stated that the business objectives assigned by company headquarters to the Business Unit Manager drive local performance. These objectives can differ significantly between business units (local operations) in various geographic locations. Furthermore, corporate-recommended standards for consideration of environmental issues often differ for new projects as compared with upgrades to existing projects.

These observations are supported by the findings of Moser and Tsai (1998) in their study of multinational companies operating in Greater China and Latin America. They observed that the environmental behaviour of the companies did not always appear optimal.

*"... despite the headquarters of many MNCs issuing strict internal guidelines concerning minimum expected subsidiary environmental performance, on a number of occasions, actual subsidiary behaviour was observed to vary (negatively) from these expectations. Variations in environmental behaviour were observed both between MNC subsidiaries, operating within the same country and in different countries. The level of variation in environmental behaviour appeared to be largely dependent on a combination of the age of the production or manufacturing facility operated by the MNC subsidiary and the strength and level of local legislation enforcement" (Moser and Tsai, 1998, pp. 10-11).*

With regard to drivers of company environmental performance in South-East Asian countries, interviewee 'X' perceived that most companies are generally "lagging", unless they are responding to the negative legacy of an incident in the company's history. One of the local dampeners on performance was perceived to be staff cynicism arising from observations of host government and local company and community attitudes to the environment. They often observe that poorly managed and more polluting industries are allowed to operate without any apparent sanction. In a relative sense, the exploration and production industry perceives itself to be a non-intrusive industry with relatively low impacts, as compared with refineries, mining operations, hydro-electricity dam construction, forestry and agriculture, or even local villagers' waste disposal practices. Their personal perspective on the impact of their own activities is adversely affected. They may also fail to see the value of adhering to high standards of performance and incurring the associated expenditure, when their local competitors and/or the local community demonstrate an apparent lack of concern for the local environment.

Furthermore, they are often not concerned that the governments will actually enforce environmental legislation. They believe that they can put forward an adequate argument

on the basis of practical engineering feasibility, to counter demands to comply with legislation, particularly where prescriptive regulations have been poorly designed. Enforcement may only be a significant risk if a regulatory breach will cause embarrassment or a problem for the government, especially the responsible cabinet minister.

Interviewee 'X' also noted that companies may be reluctant to 'whistleblow' on other companies that they perceive to be demonstrating poor environmental management, or to argue with regulatory authorities for a 'level playing field'. They reportedly fear that they will cause embarrassment by exposing payment of "protection monies" to an influential government official, and subsequently suffer business reprisals. Similarly, an interviewee in Thailand spoke of problems that the downstream operations of his company incurred with loss of diesel stocks to a local smuggling racket. The issue required careful handling, as company personnel perceived that they could easily become assassination targets.

The extent to which country managers control local operations and environmental performance standards can, however, be subject to strict oversight by head office or corporate management. Some companies with a strong environmental policy and committed leadership, can effectively set and enforce standards throughout their international operations, which are based on the parent company's home jurisdiction. In these cases, their operating companies may be required to operate at standards more stringent than those of their host countries, and will be audited for compliance by the corporate parent company. As observed by Moser and Tsai (1998, pp. 13-14), the corporate headquarters' mandates "*generate deliberate suboptimal economic decisions at the subsidiary level with respect to local environmental protection demands, where a more lax protective measure could be implemented*".

To illustrate, an interviewee from Unocal Thailand stated that the company's management system is based on corporate directives with customisation for local conditions. The parent, Unocal Corporation, audits the Thai operations (and its other foreign operations) every two years or so. It sets minimum company standards, which the local operations are free to improve upon if they perceive a local need. Unocal Thailand conducts an internal audit every year. Target objectives are increased every year in line with the continuous improvement policy. Compliance of individuals with company performance objectives is assessed in annual staff performance appraisals. Performance bonuses are linked to audit results, i.e. actual versus target objectives.

Interviewees from Royal Dutch/Shell subsidiaries in Thailand and Australia spoke of similar corporate directives for their operations. In each country, Royal Dutch/Shell companies have a mandatory requirement to develop and implement health, safety and environment (HSE) management systems tied to performance indicators. Individual

tasks and targets with five year horizons are reportedly set for personnel at all levels of the company, and performance is assessed as part of annual staff appraisals.

Corporate objectives for improved environmental performance may also be perceived favourably by country managers, if they are given development budget support and encouragement to be more innovative. In their studies, Moser and Tsai (1998, p. 15) found that

*“A number of the MNCs further considered good environmental behaviour to present a strategic opportunity (operationally and otherwise) and not necessarily a threat. This was especially the case for MNCs with new or recently established operations, where the flexibility in choice and strategic benefit from selecting the most up-to-date environmental technologies and practices is greatest. For instance, MNCs in China with manufacturing operations configured to global standards are able to save in process design time and adhere to a set of resource saving maintenance codes. This enhances central planning capability as operations become streamlined on a world-wide level.”*

Theory suggests that leadership and organisational learning play an important role in guiding company business practices and fostering company progress towards improved environmental and social performance. Interviewee ‘X’ noted that despite his generally negative impressions of the industry’s attitude, he had observed a more environmentally interested and responsible attitude in the younger generation (<40 years age group) coming through the industry ranks. However, he perceived that their influence may be 10-15 years away from achieving a widespread positive impact on industry practice, i.e. when they reach senior management positions.

One of the other emerging benefits of enlightened company leadership is increased openness and transparency. Secrecy has been a hallmark of petroleum industry culture. Knowledge (geological, engineering technology, etc.) is perceived to give companies a relative competitive advantage and is closely guarded. The public’s perception of the “deep pockets” of oil companies, endorsed by images of well-appointed corporate offices at expensive addresses, have also made these companies cautious about releasing information which may be used against them in lawsuits. In conducting research on the environmental effects of offshore drilling operations for the Australian Petroleum Exploration Association-commissioned “Independent Scientific Review”, the researchers encountered the legacies of the industry’s traditionally secretive culture:

*“The most useful information was found in conference proceedings and reports prepared by industry participants and consultants—comparatively little has found its way into the peer-reviewed scientific literature. Information on the Australian industry was found to be fragmented and difficult to access, as it was often proprietary and confidential nature, though some industry reports were made available for review” (Hinwood, et al., 1994, p. 127).*

Increasing pressure and willingness to produce corporate environmental and social environmental reports is helping to break down this culture, and improve community understanding of the industry. Lober *et al.* (1997, p. 73) suggest that there is a mutually reinforcing relationship between reporting and environmental management.

*“Producing an environmental report can help a company to better evaluate its environmental programmes, policies and performance as managers must organise, measure and present their entire set of activities. Reporting can encourage companies to develop data collection systems. It can be a tool to increase employee involvement in environmental management, increase employee morale and win top management support. It can also be a means to educate managers about what type of environmental performance external stakeholders desire. For these reasons, reporting is a potentially powerful management and performance improvement tool, rather than just a part of communications.”*

Similarly, Prothero *et al.* (1997, p. 75) argue that *“in the medium to longer term the most important issues are not to do with the communication of greener company strategies, but to do with strategy formulation and execution in pursuit of greener products, production processes and companies. However, without credibility in the marketplace created by good communication this may not happen”*.

Royal Dutch/Shell’s efforts in corporate environmental reporting have been particularly progressive. In regard to its 1997 report, Valebrokk (1997a) wrote:

*“The Health, Safety and Environment [HSE] Report makes interesting reading from a company that has hitherto been a secretive organisation. Shell lays its cards on the table, outlining the steps it has taken to be more accountable.”*

The 1997 HSE report uncovered problems of verification in internal reporting data, so its second report was checked for accuracy by independent auditors KPMG and Price Waterhouse. The company’s chairman, Cor Herkströter said: *“Those involved in the verification will attest to the difficulties in this truly pioneering effort. There were no templates to copy because as far as we know no other worldwide organisation has attempted such a large and thorough job”* (Hopson, 1998c).

While the community and shareholders favourably receive these advances, the practical reality and financial pressures of conducting profitable businesses in a highly competitive markets will continue to be the key influence on day-to-day operations of petroleum companies.

#### **4.7 CAPITAL AVAILABILITY**

Capital availability within petroleum companies is characteristically tightly controlled. In the case of companies operating on behalf of a JV, capital availability to conduct exploration and operate production facilities may require the approval of all of the JV

partners, which can be a tightly contested and compromised process. Any decision to invest funds will always need to balance a variety of risks—with risk being a critical theme that dominates commercial decision making in the petroleum industry. Oil and gas prices are a key determinant of exploration expenditure. In the competitive oil and gas markets, there is an incentive to reduce costs in order to maximise profits. Declining and/or highly volatile oil prices give an extra impetus to reduce costs. To illustrate, the average world oil price dropped from approximately US\$20 per barrel in 1996 to approximately US\$11 per barrel in 1998, returned to hover around the US\$20 per barrel mark by mid 1999, and had reached record high prices, in excess of US\$32 per barrel, by mid 2000. The short-term effects of such price volatility and uncertainty, coming on top of the Asian financial crisis, in many cases resulted in cuts to exploration budgets by petroleum companies, and a general wariness about long-term expenditure commitments.

Petroleum company interviewees commonly stated that for new exploration or production business ventures, regardless of size, the new venture manager is given a 'shoestring budget' and a clear directive that the primary objective of the business is to get established. Short-term cost minimisation is often the main concern of the business. Little financial or policy incentive is typically given to introduce innovation to environmental management practices if they will cost more, or cause time delays relative to the conventional approval process or "basic necessities" in the host country. Only where there is a clear, supported directive from the operator's head office or the joint venture, is there a deviation from this general practice, which is otherwise driven by commercial considerations.

Usually the single most capital-intensive phase is development of a production field and design and construction of production facilities and associated infrastructure. For large development projects, petroleum companies may seek finance from external lenders like commercial banks, and in the case of developing countries, international institutions like the World Bank. Project development budgets are formulated on the basis of perceived risks. According to Ramsay (1992), from a lender's perspective these most commonly include the following elements: (i) technical risks (i.e. reserves, deliverability, technology, completion, operational); (ii) regulatory risks (i.e. political, transfer), and (iii) commercial risks (i.e. project viability, sponsor/joint venture, market, environmental, catastrophe).

Regulatory risks reflect uncertainty of future government actions with respect to policy matters that may affect project development and operations. Regulatory risks include political and transfer risks which can range from changes in government energy policy which may cause an increase in taxation to controls over foreign ownership, restrictions on the transfer of funds and uncompensated seizure of assets. Project financiers are usually conscious that Government licensing and permitting agencies and even local

authorities can prevent, defer, or even shut down a project at the development or operational stage (Ramsay, 1992).

In regard to environmental risks, project financiers usually require all necessary environmental approvals to be in place, or in the process of being approved, before they will consider applications for project finance. Some finance lenders prescribe the standard of environmental impact assessment and management plans that must be prepared in order to qualify for funding. For example, the World Bank has issued *Guidelines for an Environmental Assessment of Energy and Industry Projects* (World Bank, 1991) and *Sectoral and Project Performance Indicators in Bank-Financed Oil and Gas Operations* (World Bank, 1995). A primary concern of lenders is that an environmental mishap may result in suspension of an operator's production licence, clean-up costs and even fines. The cost of site clean-up and rehabilitation is a very important issue in resource projects. Project lenders are becoming increasingly worried about being held liable for environmental damage caused by a project they have financed, especially if it becomes necessary to take control over a project after environmental damage has occurred.

#### 4.8 OPPORTUNITY, TECHNOLOGY AND COST ASSESSMENT

In the upstream petroleum sector, large companies are perceived to have the bargaining and lobbying power, capital, and technical and technological resources to enable them to acquire, develop and operate potentially lucrative concessions in operationally and/or politically challenging locations. A consequence of the market changes during the last two decades has been the increased foreign investment attractiveness of a limited number of countries with good resource potential and stable investment climates (McKern, 1996). Such opportunities increase the bargaining power of petroleum companies. Therefore, where a host government's exploration and production terms do not reflect the geological prospectivity and perceived risk of operating there, the larger companies will simply look for opportunities elsewhere. For example, many multinationals are understood to be wary of the inherently unstable current political situation in India. The companies also apparently want the government to be more enthusiastic in inviting them to invest. A Bombay representative of a European oil company was reported to say:

*"India is not the only country wanting upstream investment. We'll go strictly by merit to whoever offers the best deal"* (Taneja and Ahmad, 1997).

Through such cost-benefit screening processes, large companies can, by default, create niche opportunities for small independents. For example, in the US, the majors commonly divest their interests in production fields as they enter the depletion phase. At this stage there are still opportunities to enhance production by deepening existing wells to new producing zones and infill drilling, but the cost-to-return ratio often does not

favour large companies with high overheads, whereas the smaller independents, with relatively lower overheads, are able to invest in and operate these fields profitably for some time (Henry, 1996).

Similarly, in some remote areas, smaller companies perceive themselves to have an access advantage over larger companies. For example, the strategic business objective of independent Soco is to increase its value through exploration success and the pursuit of low-cost development projects, particularly in frontier regions:

*“Ideally what we like to do is go to a country, negotiate and sign an agreement and carry it out .... It is only where you are into well established areas where there is competition from the larger oil companies that you find yourself with a substantial financial commitment”* (Ed Story, Soco Chief Executive Officer, cited by Hopson, 1997a).

Size also has an impact on investment in corporate environmental management strategies. In a study of the minerals and petroleum resource industries, Clark (1993) found that, in general, large firms seem more able (and willing) than small firms to capitalise on the existence of environment-enhancing economic incentives in the industry. While large firms do not control their markets, due to competitive forces, the close relationships between large producers and consumers of products like petroleum are such that long-term issues dominate corporate planning. By comparison, small firms are short-term oriented. Small firms, more than large firms, depend upon the spot-market for sale of their products. This part of the market is notoriously unstable, being very vulnerable to the raiding, dumping, and predatory pricing practices of larger firms. Consequently, the flow of revenue to small firms is very unstable. This affects both their ability to develop new projects and make long-term investments in environmental quality. Small firms are very sensitive to short-term price fluctuation. Inevitably, they have a vital interest in minimising the costs of production even if this means discounting environmental quality (Clark, 1993).

Technological advances are providing opportunities for the industry to recover hydrocarbons from formerly inaccessible or non-viable geographic locations, like the deep water environments of the Gulf of Mexico and off the coast of Africa. Enhanced oil recovery technology, horizontal drilling, and three-dimensional (3D) seismic data acquisition, for example, are making it economical to extend the life of existing oil and gas production fields and re-activate abandoned fields. Consequently, recoverable reserves in a geological structure have tended to increase substantially beyond initial estimates, as has been the case in the North Sea and elsewhere. Where production was once expected to peak early in a field's or geological province's life, and then decline quickly, production now commonly continues longer and is more stable (Roland, 1998a).

Most resource companies' costs of production are dominated by the enormous initial, non-recoverable expenditures in infrastructure, environmental controls and equipment (Clark, 1993). In the case of established production operations that have a steady revenue stream, interviewees indicated that controls on expenditure tend to be more relaxed. Improvements to the environmental management of the operation can be made incrementally, and the business can afford the time and money to appoint and properly train staff in environmental management practices.

Once production levels starts to decline, or profitability is adversely impacted by sudden commodity price shifts, corporate priorities inevitably change and impact on expenditure. In 1997-98 there was a collapse of many of the East Asian currencies, followed by a regional economic downturn, curbed government and consumer expenditure and reduced demands for petroleum products (oil, refined products, gas and LNG). In Indonesia, Royal Dutch/Shell and Mobil re-evaluated their exploration programme given uncertainty over whether a market for any gas discoveries would exist with the state-owned gas distributor. The state enterprise was reportedly unable to pay for the gas it is taking from ARCO's Java operations as a result of its currency devaluation. Delays to new gas field developments or the expansion of existing projects were also considered if LNG sales contracts could not be secured (Battersby, 1998a). Such commercial influences can lead to short-termism, or sporadic financial investment in the business and hence in social and environmental management programmes.

Long-term profitability depends upon maximising production levels and rates of utilisation until sunk costs are fully accounted for. Higher than average profits may potentially be achieved by extending the life of a production site beyond the accounting life of sunk costs. The downside to these situations is the need to extend operation of production facilities beyond their original design lifetime, which can have negative safety and environmental implications. There are three key considerations in this regard.

Firstly, as these facilities age, they require an increasing level of maintenance, and the chances of hydrocarbon and chemical leakages or spillages from equipment failure also increase. For example, aging (25 years plus) offshore production facilities in the Norwegian sector of the North Sea are said to "*have huge requirements for maintenance and observation*" (Olkvam, 1998). Aging equipment also increases the risk of catastrophic failures such as explosions that can endanger workers, and cause environmental pollution.

Secondly, in the current climate of minimising operating overheads, cost-cutting measures applied to aging facilities may increase worker exposure risk in routine work practices. In a workforce survey conducted of NOPEF members (Norway's biggest oil union), "*a majority of Nopef members surveyed believed the NORSOK process [Norway's petroleum industry cost-cutting programme] has had a detrimental influence on health, safety and the environment. Among the negative effects of the Norwegian*



*cost-cutting initiatives are tighter time schedules, lower manning, and a reduction in bed capacity offshore*” (Olkvam, 1998). The latter constraint has forced more daily workforce commuting by helicopter, not surprisingly (based on calculable risk factors) resulted in a fatal commuter helicopter crash in the Norwegian sector of the North Sea in 1997.

Thirdly, financial budgets for the design, construction and operation of these facilities have been based on a projected operational lifetime. Where the lifetime is unexpectedly extended, concurrent legislative changes may require improved environmental performance (e.g. reductions in produced waste products and emissions) with which the facilities are not equipped to comply, and the operators are not financially supported to address. JV partners are characteristically reluctant to invest large sums of money in upgrading pollution control equipment once a facility has been constructed, unless there is a financially viable opportunity to upgrade the facility to increase production. As observed by Clark (1993), even if higher environment-enhancing production methods and techniques become available, companies have a strong economic interest in continuing to operate sites of production using existing capital. Innovation in environmental control at existing sites of production may be limited to just the extra standards imposed by public agencies.

Even good intentions to go “green”, will always be balanced by sunk development costs. One such example is Saga Petroleum’s proposed pollution control innovations for its *Haltenbanken South* multifold development in Norway’s offshore sector. According to Ridgen and Olkvam (1998),

*“Saga Petroleum has been forced to ditch a raft of green innovations from its plans to bring down spiralling costs. The flagship project was set to pioneer many new environmentally friendly technologies aimed primarily at reducing carbon dioxide emissions and increasing energy efficiency on the tension-leg production platform [TLP]. Now it appears that Saga has had to bow to economic pressures and abandon many of its plans as the topsides of the TLP grew during preliminary engineering to around 60,000 tonnes.” ... “Sources say equipment to strip carbon dioxide from exhaust gases and export gas have been jettisoned as have facilities for harnessing power from the wellstream through turbines.” An industry source reportedly stated, “It is a bit embarrassing for Saga as it will now be seen as putting economic considerations before the environment but they have no choice”.*

Nevertheless in other situations, technological advances in emissions control and treatment of wastes are being used by companies to improve their capability to comply with increasingly stringent pollution control regulations, as well as to lobby for the rights to access sensitive environmental areas. Companies with access to such technologies may be perceived to have a competitive advantage relative to other

petroleum companies (Nehrt, 1998). Unocal has developed and patented new technology to treat and dispose of mercury in its produced water<sup>20</sup> discharges from the Gulf of Thailand (see Chapter 6). An interviewee from the company told the researcher that Unocal will now apply the technology to a proposed new project in Argentina that will also have to address mercury disposal.

#### 4.9 ORGANISATIONAL ADAPTABILITY AND HUMAN RESOURCES

In the opinion of Victor Burk (Arthur Andersen) and Joseph Stanislaw (Cambridge Energy Research Associates), *“The oil industry is one of the most flexible in the world”* (*Oil & Gas Journal*, 1997a, p. 35). Petroleum companies have been restructuring and downsizing, and out-sourcing in the name of increased efficiency and profitability. According to J. Michael Yeager, then President of Mobil Exploration & Producing US Inc.,

*“We’re just now beginning to touch on some of the financing activities that other industries have been doing for years; we’re just now understanding the commercial markets; we’re just now understanding the spirit of win-win and how not duplicating creates hundreds of millions of dollars in wealth”. [The majors, independents, and the service/supply sector are going about technology in different ways, but] “we’re sharing more, we’re not duplicating as much”* (*Oil & Gas Journal*, 1997c, p. 36).

Out-sourcing has been in practice for some time, especially in regard to oilfield services, such as seismic surveys and drilling operations, through which service companies like Halliburton and Schlumberger have become “multinational giants”. However the scope of out-sourcing has increased (Crump, 1997). Re-engineering has changed large petroleum companies from integrated and self-contained giants, to lean, decentralised service and knowledge-based entities.

One of the major and on-going constraints encountered by petroleum companies, given the complexities of the industry’s activities, is the limited availability of qualified personnel. Financial capability is not an insurmountable problem where managerial-technical talents are available (Mikdashi, 1986). Downsizing of the company workforces, to increase profitability, has often resulted in critical staff losses, through redundancies and worker disenchantment. After Chevron merged with Gulf in 1984, it reduced the combined workforce by nearly half, to about 50,000 people. It cut another 6,500 people in 1992-93 (Korten, 1995). J. Michael Yeager reportedly observed that one of the negative aspects of the current industry structure is a shortage of available experienced personnel, *“We’re short [sic] people—we’re feeding off each other”* (*Oil & Gas Journal*, 1997c, p. 36).

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<sup>20</sup> Formation water is the water that occupies pore spaces in rock formations. It may be ‘produced’ when gas, condensate or oil are pumped from wells inserted into hydrocarbon reservoirs.

As a consequence, there has been a significant shift in the use of contractors over the past decade. Annual returns to the international oil industry body, the E & P Forum, of hours worked by companies and their contractors, showed that in 1985, 32% of hours worked were by contractors, but by 1996 this had risen to 60% (E & P Forum, 1998). Non-core businesses like accounting, transportation and legal services are often outsourced (Roland, 1998a), as are environmental management services.

The increased dependence on contractors has been accompanied by a shift in responsibilities from companies to contractors and, in many cases, involvement in new types of work. In these circumstances, there is increased risk that industry standards on health, safety, environmental protection and social assessment, and transfer of technology and skills will be compromised, unless there is close cooperation between petroleum companies and their contractors. *"The oil and gas industry will be judged not on the performance of the oil and gas companies alone but on the joint performance with all its contractors"* (E & P Forum, 1998, p. 11).

Management of change is a critical component in maintaining and improving upon performance standards, but even reputable, experienced majors can be swept up in short-term demands to meet their annual exploration and production targets, and fail to recognise the implications of poor operations management. An interviewee from a multinational subsidiary operating in Australia relayed the following example.

The subsidiary had been given a corporate mandate to undertake a demanding programme of exploration, particularly in its offshore concessions. Over the period of less than two years, the subsidiary underwent a rapid growth phase (from a staff of 50 to 150 over about 12 months), essentially starting from 'scratch' and importing company technical personnel from overseas, together with a large number of contractors to fill its staffing needs. Along with this mixed labour force came a range of operating cultures, not all of which were aligned with, or prepared to align with, the corporate culture of the subsidiary and its corporate parent. Further, while the subsidiary had operated in Australia in the past, many of its locally experienced staff had left or been transferred elsewhere when the company went through a low activity phase in the intervening years. With the turnover of those staff, the subsidiary had lost valuable 'corporate memory' within the organisation, and this was not compensated for by an increased usage of outsourced contractors.

Middle managers in the re-staffed subsidiary were also not empowered to make decisions. Consequently, many of the well-established corporate management system procedures, such as critical 'no-go' decision-making practices, were not employed or enforced. Similarly, due to a *"lack of planning ethos"*, critical planning steps were bypassed and potential problems and risks were inadvertently overlooked. In the subsidiary's haste to take advantage of offshore drilling rig availability (the rig hire market at the time was very 'tight'), short-cuts were taken to fast-track operations, and

key (and usually routine) activities like hazard and operability studies (HAZOPs), risk assessment, risk management and quality assurance were overlooked.

The subsidiary failed to adequately involve the drilling rig company in planning the drilling programme, and had not adequately briefed company personnel on the complexity of the geological conditions. The rig that was contracted was inappropriately-equipped for the geological conditions in which it was required to perform, and had a drilling rig crew that was inexperienced in dealing with those conditions. Not surprisingly, one of the offshore drilling programs encountered a technical difficulty and lost well control, which resulted in a potentially fatal incident. Ironically, the incident was stopped from developing into a catastrophic situation by the instinctive actions of an on-site drilling contractor who performed an action to regain well control, which by conventional petroleum industry standards was considered highly unsafe and was in breach of company drilling procedures.

From the drillers' perspective, depressed petroleum commodity prices and associated cost-cutting practices in the petroleum industry, during the 1980s and 1990s, have had the effect of lowering field workers' wages (relative to other industries and the earlier lucrative days of the petroleum industry), and field worker confidence in the industry as a desirable long-term employer has diminished accordingly.

According to a drilling consultant interviewed by this researcher, many experienced field operations personnel, such as drilling rig and platform workers, have left the industry, while potential new entrants have chosen to enter other industries, rather than train to work in the petroleum industry. Consequently the industry is now facing a workforce shortage, especially of experienced drilling rig hands. Those that remain in the industry are therefore sought after by drilling contractor companies, and as such they can be selective about where they work, often taking into consideration prevailing personal income tax regimes (Australia is not favoured).

As a consequence, the interviewee reported that drilling rig operators in Australia have been forced to employ untrained labour. On one of the interviewee's offshore supervision shifts in 1998, the most experienced drilling crew members under his supervision had only three weeks' practical experience. These workers typically not only lack technical knowledge and experience, but they also often do not have an inherent or instilled HSE culture, and hence have a poor understanding of operational risks and the necessity to comply with stringent safety precautions. For their own personal wellbeing, as well as the overall safety and integrity of the operation, these workers reportedly need constant close supervision, which in turn creates increased responsibilities, concerns about professional and personal liability, and associated higher stress levels for the drilling supervisors. Such working conditions are understandably not attractive to these supervisors, who themselves are then tempted to seek other work elsewhere.

The interviewee perceived that such problems have arisen partly as a result of the oil price crisis of the mid 1980s, when petroleum companies began to downsize and increasingly rely upon drilling contractors to provide skilled and experienced drilling staff. However, while petroleum companies had previously invested time and money in training its staff in both technical aspects, and the importance of quality and HSE management systems, the interviewee did not perceive that drilling contractors have the appropriate cultural or organisational background to adequately train drilling supervisors. Furthermore, competitive pricing pressures discourage drilling companies from investing in staff training. According to the interviewee, *“the oil industry is paying the price for not having trained anyone since the 1980s ... no new generation of drilling supervisors is being trained to replace the current workforce”*.

These observations are supported by reports from the US. Valebrokk (1998a) observed that the *“tremendous boom in offshore activity, both in the US and elsewhere”*, has forced the industry to recruit outside the normal channels and this has been having an impact on safety.

*“Over the last 12 months total manhours in US waters have increased from 32.8 million to 41.2 million while the number of fatalities has risen from three to eight, according to the International Association of Drilling Contractors. ... Critics feel there is a danger now [10 years after the Piper Alpha disasters and subsequent reforms to safety regulations] that complacency is setting in among oil companies and offshore service contractors. The unions say the rhetoric of top company bosses on safety does not always translate into action on the oilfields”* (Valebrokk, 1998a).

The E & P Forum has recognised within the industry that with more out-sourcing of work by petroleum companies there is a need to ensure that contractors adopt practices that are as safe as those used by the operators.

*“Looking at it sectorally, we are finding seismic contractors are performing excellently while drilling contractors are lagging behind in their safety performance”* The basic problem is that drilling contractors tend to do more *“one-off”* type contracts while seismic contractors do a multitude of *“follow-on”* jobs. *“It is easier to get a safety culture engrained if you have longer term projects and only a few contractors”* (Terry Thoem, chairman of the E & P Forum committee dealing with safety, health and personnel confidence, cited by Hopson, 1998b).

The E & P Forum is now involved in identifying opportunities for *“collective training programmes”*. From a company standpoint, Thoem reportedly believes that the only way to improve overall safety statistics is through education and exerting pressure on the senior executives of poorer performing firms (Hopson, 1998b).

A constraint to improved performance in exploration and well development is perceived to be the continued use of the traditional ‘bundled’ approach to provision of services. This approach is basically cost driven and focuses on reducing direct costs through

competitive tendering and bulk discounting. The process of acquiring services is firmly controlled by the petroleum company operators, where services and materials are utilised on an 'as needed basis' (*Petroleum Gazette*, 1996). According to David Ward, Business Development Manager, Dresser Drilling and Production Services, Australasia/South East Asia (cited by *Petroleum Gazette*, 1996), each contractor was typically hired to carry out a predetermined operational program which had progressed through the internal tiers of approval and could not be easily changed. In very few cases were the ability and experience of the contractor called upon to refine or change the program. The culture of the industry was one that relegated the contractor to the role of executioner and maintained responsibility for planning and on-site management strictly as the preserve of the operator.

An integrated approach to provision of services is increasingly being favoured for field development and production operations. This approach focuses on aligning the contractor's and operator's business drivers to deliver a quality product. The four main principles of integrated services or alliancing are: (i) alignment via performance-based incentive programs; (ii) commitment to behavioural change; (iii) teamwork and enhanced communications; and (iv) benchmarking and continuous improvement. Supporters of alliancing suggest that

*"the key to modern-day partnering or alliancing is the establishment of a relationship between participants based on trust, dedication, common goals, and an understanding of each other's individual expectations and values"* (John Kava, Project Integration Manager, North West Shelf, Western Australia, cited in *Petroleum Gazette*, 1996, p. 22).

Performance incentive schemes may be: (i) time-based (where there are bonuses for early delivery and penalties for late delivery; (ii) cost-based (where bonuses are awarded for delivering under budget); (iii) health, safety and environment-based (where good practice is rewarded and poor safety or pollution incidents are penalised); and (iv) quality-based (where high quality is rewarded and poor quality is penalised) (*Petroleum Gazette*, 1996). In terms of behavioural change, the operator must fully release the control that has been assigned to the contractor. Equally, the contractor must enthusiastically embrace their added responsibilities in accepting non-core activities and take the lead in driving performance improvement. Continuous performance improvement requires contractors to define targets, measure performance against these targets and use the results to improve the tasks. It also calls for a far-sighted approach so there is no discouragement of any new procedures or technologies that may initially have a small negative impact, but which ultimately have a long term benefit to a project (*Petroleum Gazette*, 1996).

The entrenched decision-making and operating approaches of the petroleum companies may, however, take some time to adjust to this new cooperative approach. One

interviewee used the analogy of a supertanker—“*it takes a long time to change course in response to prevailing currents*”. Similarly, in reference to advances in corporate environmental performance, Chris Fay, Chairman and Chief Executive Officer, Shell UK observed:

*“Changes will inevitably take time. ... If anyone expects a Big Bang, they’re going to be disappointed. Long-held assumptions and working practices will need to be challenged and then challenged again”* (Knott, 1998, p. 37).

#### 4.10 ANALYSIS AND CONCLUSIONS

This industry sector profile has endeavoured to identify the character of upstream petroleum companies and the complex and dynamic nature of their business environment. Key characteristics of the industry that are of importance in understanding their business context are summarised below.

Although petroleum companies vary considerably with respect to origin, size, structure, strategy, management, innovation, flexibility and performance, two key objectives essentially determine their behaviour: (i) high profits and growth, and (ii) the stability and long-term survival of the company. Evolving marketplace influences, and associated ongoing restructuring of the petroleum industry, have several implications for future corporate business strategies of companies. The specific operational challenges currently facing the upstream petroleum industry include: (i) the development of remote gas and oil fields; (ii) the development of smaller fields; (iii) greater attention to greenhouse gas emissions; (iv) continued high priority to safety and environmental performance; (v) reduction of the environmental impacts of facilities and processes; (vi) cessation of production from uneconomic fields; (vii) exploration and production in deeper waters; (viii) increasing use of floating production systems and subsea installations; (ix) innovative processing technologies; (x) increased automation; (xi) reduction in costs; and (xii) continued access to acreage.

*“With the exception of the ever present challenge to ensure government demands for a greater share of the economic rent from resource developments does not become prohibitive, the above changes and challenges all require continued effort to ensure this industry can meet the high expectations it has of itself let alone the externally induced parameters from governments and the community”* (Wells, 1995).

Petroleum industry business strategies are closely linked to the global market price of oil, gas and LNG, and the need to quickly respond to pricing changes by curbing exploration and operating expenditure and restructuring. Institutions created in response to various challenges posed by the petroleum sector will have to evolve by adapting their functions and operations to changing realities—if they are to survive and develop. *“The essence of longevity is adaptability”* (Mikdashi, 1986, p. 177).

In the foreseeable future, private sector exploration, development and supply of local petroleum resources will be encouraged by the national governments in the East Asian region. Gas, in particular, will increase in importance in this region. From the perspective of the petroleum industry, the main determinants of the relative attractiveness of petroleum investment in host countries are the prospectivity, fiscal regime, macro-economic risks, business environment, political risks and corporate strategy. The economics of gas are also dependent upon factors such as gas prices and the timing and level of gas supply opportunities (Allinson and Elliston, 1994). Economic development and industrialisation of Thailand and its East Asian neighbours over the last 50 years or so, has created an increasing demand for locally produced hydrocarbons. However, East Asia is, in per capita terms, short of oil and gas resources, although the region is also relatively still under-explored, and potentially may hold a significant share of the world's hydrocarbon reserves.

Size is considered to be a particularly important competitive advantage in the petroleum industry. Besides geological risks, commercial risks can be incurred following inopportune fluctuations in prices. Further, political factors, such as boycotts/embargoes, nationalisations or conflicts, can cause large financial losses. Large size enables a company to absorb such losses without jeopardising survival (Mikdashi, 1986). Major petroleum enterprises have, over the years, built extensive networks of affiliates, subsidiaries and joint ventures in various parts of the world. This strategy of geographical spread enables the company concerned to exploit business opportunities rapidly. This can make up for unexpected disruption of supplies, transport or refining facilities in a given region of the world by increasing activities in other regions of the world. It also serves to reduce over-dependence on one region or one market, thus attaining greater corporate stability—with one market's profits covering temporary losses in another market (Mikdashi, 1986). Small, independent companies are often able to find niche opportunities in frontier exploration, the development and operation of small production fields which can be connected to existing neighbouring supply infrastructure, and in the operation of declining fields which are no longer profitable for the large, overhead-laden companies.

Companies best positioned to benefit from the regional business opportunities will be those with an existing presence, proven track record of capability, and well-established working relationships with the host governments. However, these host governments have also demonstrated that they are sensitive to political interference by Western nations, such as US sanctions on Myanmar. Malaysia has openly attacked Western countries for their hypocrisy in criticising Third World countries for environmental damage when they consume the bulk of the world's resources (Jesudason, 1996). Consequently, the investments of foreign, especially Western, petroleum companies face political risks associated with both their home countries and their hosts. These companies must therefore tread carefully with both.



Business risk assessments need to be conducted on a regular basis, as legislative changes and public opinion may quickly move the performance goal posts, particularly in terms of social and environmental management performance. Environmental risks have, for some time, been a high profile concern to the petroleum industry in western countries, such as issues of indigenous land usage rights, community acceptance and access to environmentally sensitive areas in Australia. However, in South-East Asia, environmental risk has been less of a business concern to petroleum companies, relative to their concerns over political stability and investment terms.

This situation is now changing. Expectations of corporate social responsibility emerging in the international arena will increasingly affect business in South-East Asia. Bray (1997) suggests companies will face closer scrutiny from shareholders, NGOs, the media and, increasingly, their own staff. Commercial activities in one part of the world will help determine a company's reputation, and profitability elsewhere around the world. The companies best able to adapt to this operating environment will be those which anticipate problems, maintain communications with NGOs and key interest groups, and present clear, reasoned explanations of their policies during crisis incidents (Hastings, 1999; McDaniel *et al.*, 1998).

Investment risks and returns are influential in determining petroleum company attitudes towards their environmental management responsibilities. Estrada *et al.* (1997) concluded from their case study analysis that despite some observed differences between the large US and European petroleum companies they studied, the similarities were 'striking'. The company visions were almost identical for most of the companies, and environmental management was basically the same in each of the companies. The long-term view of the market held by each company did not differ significantly, and there was a uniform trend towards concentration on core business.

However, while petroleum companies share common business interests and visions, their individual perceptions of, and implementation of environmental and social policies may differ markedly at the business unit level, according to the business unit's priorities. Where market pressures impose the need to tighten expenditure, industry examples demonstrate that companies can be quick to respond, and some will readily sacrifice environmental management as a 'non-essential' item. Many company executives, driven by bottom line profit targets, still consider environmental obligations as a burden to exploration and production costs—an expenditure for which they may see no tangible return, particularly in the short-term.

Many of the industry interviewees expressed optimism that individual company and petroleum industry attitudes toward the environment have positively changed and will continue to improve over time through education and training. However, many observed that the industry's progress towards improved corporate environmental and social responsiveness will be tempered by commercial pragmatism. The attitude was simply

expressed by one interviewee as "*business is business*", meaning that companies operating in market economies are always forced to consider the financial 'bottom line' implications of their actions. Despite the advent of environmental economic principles based on the accounting of environmental externalities and the 'triple bottom line' (Elkington, 1999), petroleum business accounting still appears to be firmly entrenched in the ways of traditional cost accounting.

In the case of autonomous business units or country offices, middle-ranking executives win the support of senior executives, and ultimately financial rewards, if they run profitable operations (Clark, 1993; Bray, 1997). Operations managers who are pre-occupied with the 'bottom line' may compromise corporate environmental management objectives and standards. Even large well-intentioned multinational companies cannot necessarily control the environmental performance of their subsidiaries, if the local business units withhold information from corporate managers. Furthermore, if activities like environmental impact assessment and environmental monitoring are not host country compliance requirements, then these tasks may be avoided or only given token attention (Fowler, 1995).

The findings of this chapter demonstrate that external, mediating and moderating influences play an important role in determining corporate business strategies of petroleum companies. In terms of environmental management practices, both market and other external forces, and internal factors, such as culture, ethics and leadership, determine petroleum company performance. The external forces are characteristically highly dynamic, and often require rapid reactive responses from companies in order for them to maintain their market position. Governing regulatory frameworks therefore need to incorporate sufficient flexibility to allow these companies to pursue market opportunities, while also harnessing the power of peers and third party interests demand acceptable standards of corporate social and environmental responsiveness.

# CHAPTER 5

## REGULATORY APPROACHES AND PROBLEMS

*“A consequence of the increased importance of civil society is that the differentiation between legal and social legitimacy has sharpened. As a result, companies may find it more difficult to obtain social legitimacy for their activities simply through state approval” (Bragd et al., 1998, p. 184).*

## 5.1 INTRODUCTION

As indicated in Chapter 4, petroleum companies have historically used host country regulatory requirements to guide formulation of their minimum environmental performance criteria. However, in the developing nations of South-East Asia, some of the components of the regulatory systems are in flux or in the early stages of development. In this form, the regulatory processes are neither particularly transparent nor effective, and often fail to provide appropriate regulatory instruments to regulate the social and environmental performance of upstream petroleum companies.

The purpose of this chapter is to identify typical regulatory process problems that occur in the developing countries of South-East Asia, and the consequences of those deficiencies in the context of the upstream petroleum industry and regulator responsibilities for environmental management. Section 5.2 overviews the characteristics of the regulatory framework for environmental management in the developing nations of South-East Asia to identify sources of tension between industry and regulators. Section 5.3 is an overview of the origins and constraints of the Thai environmental law framework. Section 5.4 discusses the implementation problems associated with the Thai environmental impact assessment (EIA) process and the impact on petroleum company behaviour. Section 5.5 presents the conclusions of this chapter.

## 5.2 SOUTH-EAST ASIAN REGULATORY SYSTEMS

Most of the South-East Asian nations have developed policies and legislation to address environmental problems, and established specialised regulatory institutions to oversee environmental protection. Formulation of environmental legislation and regulations in these countries has tended to be facilitated with outside assistance. This assistance has often come via loan projects from the multilateral banks, such as the Asian Development Bank and the World Bank), or bi-lateral technical aid projects funded by donor governments of developed nations like Australia, Canada, Denmark, Norway, Sweden, and the US.

For example, in Indonesia the regulations for environmental impact assessment were adapted from Canadian regulations, through a Canadian government aid project. In Vietnam, PetroVietnam is drafting industry-specific safety management regulations and other technical guidelines on emission standards with assistance from the Norwegian Petroleum Directorate (Nguyen, 1998). An inter-governmental organisation, the Coordinating Committee for Coastal and Offshore Geoscience Programmes in East and South-East Asia (CCOP), proposed a related project in association with the ASEAN Council on Petroleum (ASCOPE) and the Norwegian Petroleum Directorate. The project aim was to develop regional environmental standards and safety regulations for the petroleum industry in South-East Asia. The United Nations Development

Programme (UNDP) and CCOP have also promoted the development of anti-pollution legislation and regulation in member countries.

As a consequence of such institutional strengthening projects, the legislation and standards of South-East Asian countries have commonly been modelled on those of industrialised countries, and often strongly reflect the influence of their foreign technical advisers (James, 1998). They may, however, be quite dissimilar or unrelated to those of their Asian neighbours, or even other regulatory agencies in the same country. Piecemeal formulation of environmental legislation and standards for specific government ministries or departments leads to problems of inconsistency and incompatibility, and inadequate linkages to the roles and responsibilities of other government agencies (Kiravanich, 1995). Lack of process continuity, and in some instances co-operation, between responsible authorities is often an impediment to integrated environmental management of industrial projects (Hossain, 1995).

Aside from concerns about co-ordination and compatibility, many of the laws and standards adopted by South-East Asian countries are simply inappropriate for application in developing nations. Countries like Thailand and Indonesia generally lack suitably skilled and trained agency staff and local information needed to conduct their own scientific research and technology assessment, and set appropriate standards. Consequently they have tended to directly adopt standards based on those of developed nations, in particular the USA and Japan (O'Connor, 1994). They have failed to recognise that such standards have been designed for implementation in regulatory regimes with technologically advanced industries and strong regulatory monitoring and enforcement capabilities.

Like their foreign models, these command-and-control instruments are expensive to implement and administratively demanding. The important issue of institutional capacity to effectively administer and enforce the new legislation and standards is also often overlooked or poorly addressed. Sophisticated and costly monitoring requirements remain beyond the financial and technical capabilities of most environmental regulatory agencies in developing countries. Furthermore, these agencies are often under-staffed and have too many work demands to be able to satisfactorily perform their mandated enforcement and monitoring tasks—a problem which tends to be particularly evident at the middle level of regulatory agencies in South-East Asian countries (Martin, 1998).

For example, Thailand's *Hazardous Substances Act* places joint and several liability on all parties involved in production through to disposal of hazardous wastes. However, there is reportedly no control over the importation of some hazardous materials, no standards or guidelines for safe handling, transportation and application in production processes, and inadequate coverage by existing emergency response plans (Office of Environmental Policy and Planning (OEPP), 1997). Facilities for the treatment and

destruction of hazardous wastes from industrial sources are inefficient and ill-equipped to deal with the range of hazardous wastes that are being generated. Hazardous wastes can only be treated at two locations: Samae-dam and a landfill in Ratchaburi province. Other impediments include a lack of standards and procedures for collection, handling, storage, treatment and final disposal of hazardous wastes; poor collaboration between government, public, waste operators and waste generators (OEPP, 1997).

This problem is accentuated in marine areas, where both budgetary constraints and jurisdictional limits hamstring the regulators. For example, an emerging issue in the Gulf of Thailand is the need to plan for the decommissioning and removal of aging offshore petroleum production structures, in accordance with the requirements of United Nations Conference on the Law of the Sea (UNCLOS) (Wiwatpattarakul, 1995; Economic and Social Commission for Asia and the Pacific (ESCAP), 1996; Pittard, 1997). As of March 1995, there were 82 production-related offshore structures operating in the Thai sector of the Gulf of Thailand, and more are being installed each year. The existing domestic environmental legislation of the coastal states only applies within their territorial sea boundaries, whereas many of the petroleum installations are located in their Exclusive Economic Zone (EEZ) (that is, more than 12 nautical miles offshore). State legislative power regarding matters such as environmental impact assessment, pollution control, and hazardous waste management, beyond the territorial sea limit are restricted to regulating the use of offshore structures in the exploitation of natural resources lying within each state's continental shelf areas and EEZ through their petroleum legislation. Wiwatpattarakul (1995) has identified that Thai law does not currently adequately address responsibilities and liabilities in this regard, and similar constraints are evident in the neighbouring countries that share administrative responsibility for the Gulf of Thailand.

Another characteristic administrative problem in the region is the reluctance of government bureaucrats to share information, both within their own departments and between government agencies. A specific problem in marine resource management, for example, is the lack of co-ordination among agencies responsible for resource use planning and management at both national and inter-governmental levels (Sosmena, 1994). Longstanding political, economic and cultural rivalries between the nations of the region have often acted to impede cooperative environmental management initiatives at the senior government executive level (Seda, 1993; Sosmena, 1994). Even the United Nations Environment Programme's East Asian Seas programme has reportedly encountered reluctance from its member countries to release natural resource inventory information.

The obstructive mechanisms that are in place to impede release of data, often drive both government agencies and the private sector to initiate their own environmental data collection programmes. This is simply because it is easier and quicker to collect the data

again, rather than attempt to obtain access to existing data sets. Needless to say, this process is time-consuming, expensive, inefficient, and unsatisfactory where long-term records are needed to develop appropriate resource management plans and monitor environmental impacts.

These institutional problems are common to many of the developing nations of South-East Asia. However, for the purpose of the research, Thailand is used as a case study to illustrate the specific problems that can arise from inadequate implementation of environmental legislation and regulations. The following section describes the characteristics of the environmental regulatory system of Thailand and explains why the current system does not help to facilitate corporate social and environmental responsiveness.

### **5.3 THAI ENVIRONMENTAL REGULATORY SYSTEM**

Thailand is sometimes credited with having far-sighted and far-reaching environmental legislation, which could be interpreted as an indication that previous governments have been seriously concerned about, and committed to, environmental protection. However, it is important to recognise that virtually all of Thailand's key environmental legislation was enacted during three relatively short periods in its political history—in the early 1960s, in response to effective lobbying by first generation conservation groups; during the brief period of intense civil pressure for political reform in the mid-1970s; and during the even briefer rule of the two interim governments led by Anand Panyarachun (1991-1992). The somewhat opportunistic nature of the enactment of this legislation is one of the core reasons why many Thai governments, including the incumbents, have been widely and frequently accused of not demonstrating commitment to their enforcement.

Environmental laws first emerged in Thailand in the early 1960s, as a result of an attempt by a small group of environmentally aware academics to persuade the government to take an active role in conserving the natural environment (Baker, 1995). In 1953, Dr Boonsong Lekagul<sup>1</sup> and a group of fellow hunters-turned conservationists became concerned about the trend of large scale wildlife hunting and deforestation. They formed the first Thai conservation group, the Association for the Conservation of Wildlife (ACW) and began a push for the enactment of legislation aimed at protecting Thailand's natural resources, particularly forests and wildlife (Baker, 1995). The influence and lobbying of Dr Boonsong and his followers were rewarded with the

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<sup>1</sup> Like its counterparts in the US and other nations, the environmental movement in Thailand began as a conservation movement. The 'father' of the conservation movement in Thailand, and a guiding figure behind many of today's environmentalists in Thailand, is Dr Boonsong Lekagul (Baker, 1995).

enactment of the 1960 *Wild Animal Preservation and Protection Act* and the 1961 *National Park Act*. Shortly after the passage of the latter, Dr Boonsong persuaded then Prime Minister Sarit Thanarat to accompany him on a helicopter trip to assess the state of Thai forests<sup>2</sup>. This trip was apparently decisive in convincing General Sarit to declare Khao Yai as Thailand's first national park (Baker, 1995).

The first *Enhancement and Conservation of National Environmental Quality Act* was promulgated in 1975, and included provisions to establish the Office of the National Environmental Board (ONEB). Despite amendments to the Act in 1978 and 1979, it, and other laws dealing with environmental issues, were increasingly seen as inadequate and efforts were made to strengthen or replace them (Baker, 1995). These efforts came to fruition under the Anand Panyarachun<sup>3</sup> administrations of 1992. Much of the new environmental legislation passed during the Anand period had actually been proposed years before, but it was only during his terms in office that passage was achieved. Ironically, the two short terms of the interim Anand governments are often credited with being the best government that Thailand has ever seen—probably because the appointment of Anand was so out of character with the Thai political scene, both before and after his terms.

As a former diplomat and businessman, Anand was aware of the long-term harm to economic interests posed by environmental problems. The cabinet of his interim

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<sup>2</sup> In 1936 it was estimated that forest covered some 70% of Thailand's total land area. By 1952 this figure had decreased to 58%. By 1961 this figure was 54% (Baker, 1995). More recent studies (1993) indicate a remaining forest cover of 26% (13 million ha) (OEPP, 1997).

<sup>3</sup> Following the coup on 23 February 1991 that brought down the elected government of General Chatichai, the military junta took power, calling itself the National Peace-Keeping Council. It set new elections for no later than April 1992, established an appointed National Legislative Assembly, and chose as interim Prime Minister, Anand Panyarachun. Anand's initial appointment came as a surprise to most, as he had a reputation as a liberal and was not known to have any personal connections with military leaders. Furthermore, Anand was known to be a key figure in the business-technocratic alliance. In his early career, he had been a Foreign Ministry official, and moved easily among technocrats. In 1979, he quit government service and moved to the chairmanship of major textiles conglomerate. Throughout the 1980s, he took a prominent part in business associations, and became the political ambassador of metropolitan business.

Elections were held in April 1992, and a new leader was democratically elected, but the military junta instead chose to appoint General Suchinda Kraprayoon as Prime Minister. This nomination caused widespread public upset, and an NGO-organised coalition worked to reverse this decision and install an elected Prime Minister. The climax of this opposition was the fatal May 1992 demonstrations in Bangkok that called for Suchinda's ousting. As a consequence, Anand was again brought in as interim Prime Minister until new elections were held in September 1992, when the civilian government of Prime Minister Chuan Leekpai was elected (Baker, 1995).



government was comprised of businessmen, senior technocrats, and academics, several of which were already prominent NGO leaders. These cabinets were supportive of NGOs and the need for new environmental legislation (Baker, 1995). Consequently, during their period in parliament (when there was no effective opposition), they were able to quickly enact a swathe of reforms designed to complete the transition to an economy based on export-oriented industrialisation and a considerable amount of environmental legislation, while winning widespread popularity<sup>4</sup> (Baker, 1995; Phongpaichit and Baker, 1997).

Seven key acts of environmental legislation were promulgated during the Anand government: the *Wildlife Conservation Act*, February 1992; *Act for the Cleanliness and Orderliness of the Country*, February 1992; *Energy Conservation Act*, February 1992; *Hazardous Substances Act*, April 1992; *Factory Act*, April 1992; *Enhancement and Conservation of National Environmental Quality Act*, April 1992 (that repealed the 1975 Act); and the *Public Health Act*, April 1992.

Under the *Improvement of Ministries Act* 1992, the Ministry of Science, Technology and Energy was renamed the Ministry of Science, Technology and Environment (MOSTE), and equipped with three new departments specifically concerned with the environment, including the Office of Environmental Policy and Planning (OEPP). MOSTE was assigned responsibility to administer the *Enhancement and Conservation of the National Environmental Quality Act* 1992 (the ECNEQ Act). Under the provisions of this Act, the former Office of the National Environmental Board (ONEB) was upgraded from an advisory body to an active policy-making centre chaired by the Prime Minister, and is now known simply as the National Environmental Board (NEB). The NEB was bestowed with the power to enforce policies and standards if the responsible agencies fail to do so.

While the ECNEQ Act and the other environmental legislation were intended to provide for effective administration, in practice their implementation often fails to deliver informed decision-making and effective environmental management. Several specific reasons for the failure of the Thai environmental protection framework have been identified. O'Connor (1994) and Baker (1995) suggest that financial, technical and human resource constraints are the most serious obstacles to more effective environmental management in Thailand. Wasant Techawongtham, the *Bangkok Post's* Deputy News Editor for Environment and Urban Affairs, believes that the influence of cultural norms and key social 'forces' in Thai society are the key factors:

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<sup>4</sup> After the restoration of parliament in late 1992, there were apparently calls for Anand to enter party politics, but he refused.

*“Manpower and budget shortages are not unique to this country. Enforcement agencies worldwide have to work under similar constraints, yet some manage to achieve a certain degree of credibility with good resource management, an ability to set priorities and the will to enforce the law with dignity and integrity. Sadly, these qualities are lacking in our enforcement agencies, with few exceptions. ... The problem with this country, however, is that there are other variables—political, cultural and structural—which get in the way of good officials trying to do their job. Political meddling often puts a damper on officials’ enthusiasm for stringent action. The tendency to compromise and go easy on businesses in deference to the privileged class is a cultural trait that cuts down on enforcement effectiveness. The tangled web of overlapping authority among agencies complicates and discourages enforcement”* (Techawongtham, 1998).

In short, the implementation problems stem primarily from the structure of the bureaucratic system, and the attitudes and behaviour of the bureaucrats that are responsible for administering the legislation and regulations. As Rigg (1995, p. 15) has observed:

*“Thailand’s environmental crisis stems not from a failure to understand environmental problems, or at least appreciate that they exist, but to do something about it”.*

To illustrate, in Thailand there are 24 departmental level agencies, within eight ministries, involved in water resources planning, development, and management (excluding the Mekong River administrators) (Vadhanaphuti *et al.*, 1995). Regulatory controls on water quality have been drawn up by a multitude of agencies according to their respective areas of responsibility: (i) water quality for irrigation and fisheries (Ministry of Agriculture and Co-operatives); (ii) use of waters and seas for transportation (Ministry of Transportation); (iii) water quality in rural areas (Ministry of Public Health and associated local government agencies); and (iv) industrial pollution control and industrial effluent and emission standards and disposal procedures (Ministry of Industry: Department of Industrial Works and the Mineral Resources Department). However, standards developed by these government agencies are rarely compatible. They have been developed for differing purposes, and point discharge standards are often not linked to ambient environmental quality standards (such as surface fresh water sources, groundwater, and coastal water quality), that are the responsibility of the National Environment Board (NEB).

In the context of upstream petroleum production operations, the ECNEQ Act requires operators of point sources of pollution to maintain daily operational records of wastewater treatment, waste disposal, and air pollution control facilities. They are also legally required to submit summary reports to the local authorities at least once a month (although this is rarely done) (O’Connor, 1994). Under the Act, the Pollution Control Department (PCD) of MOSTE is given the primary responsibility for undertaking

investigations and instigating disciplinary action against polluters. In reality, the PCD has the authority to monitor and inspect, but no authority to enforce action (Bureau of National Affairs, 1997). To add to its problems, the PCD has only a few hundred pollution control officers who are responsible for inspecting over 50,000 establishments nationwide (O'Connor, 1994).

Identified polluters must be referred by the PCD to the responsible government authority to take action. For example, pollution from a petroleum production operation must be referred to the Department of Mineral Resources (DMR). If the PCD requests the responsible authority to take action and no reply is received within a month, PCD officials can undertake another inspection of the polluting operation to determine what corrective measures should be taken. If no action is forthcoming from the polluter or the responsible authority, the PCD then has the authority to order corrective action, but it does not have the power to shut down a polluting operation (Bureau of National Affairs, 1997).

Where fines and penalties are imposed on polluters by regulatory authorities, they are rarely set at levels that constitute an effective deterrent. Where they are punitive, enforcement officials *"may too readily yield to the special pleading of financially precarious enterprises or, in some cases, to bribery"* (O'Connor, 1994, p. 14). Corruption of regulators was raised as a concern by interviewees from foreign petroleum companies (see Chapter 4). In some cases, interviewees reported that regulatory enforcement officers appear to turn a blind eye to non-compliance by local companies, but target multinational companies.

In reference to the problems of water resource management in Thailand, Tapvong (1995, p. 190) summarised the dilemma as follows:

*"... the responsibilities of different government agencies overlap in a tangled web of bureaucracy. The considerable task at hand and the degree of bureaucratic inertia and intransigence has left environmentalists, NGOs, the public, and even government officials themselves, in despair"*

The influence of bureaucrats can be particularly problematic. The unitary<sup>5</sup> nature of the Thai political system means that almost all decisions of any importance emanate from the central government in Bangkok. Provincial and local governments have little power to make policy, and essentially administer decisions made in Bangkok (Baker, 1995). There are times when Thai bureaucrats act as a force to resist changes, including those

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<sup>5</sup> Thailand has a unitary system of government, which operates under a legal system adopted from many countries. It is a code system, derived from the Code Napoleon, which does not observe judicial precedent, nor use juries.

deemed by Parliament to be of national importance. Often policies advocated at Cabinet (Council of Ministers) level do not filter down to the working level, due to a lack of implementing laws, regulations, instructions, follow-up, or just bureaucratic reluctance—government officials can act at cross purposes to oppose a policy or decision they do not support.

To illustrate, environmentalists have argued that some Thai environmental agencies have conflicting responsibilities. They suggest that an entire ministry should be devoted to environment protection and management. The Thailand Environment Institute (TEI), a highly regarded NGO, has suggested grouping the Departments of Forestry, Land Development, Irrigation, Fisheries, Mineral Resources, Pollution Control, the National Energy Policy Office, and the Office of Environmental Policy and Planning together (Inchukul, 1997b). The Thai Ministry of Science, Technology and Environment (MOSTE) published a formal recommendation for such in August 1997 (Thammasat University, 1997).

This idea was discussed by Thai government officials from environmental and related agencies, at a seminar in November 1997, but reportedly met with resistance (Inchukul, 1997b). Some officials argued that the plan “*was impractical and impossible to implement under the current bureaucratic regime*”. A Forestry Department official reportedly accused MOSTE officials of making the proposal “*to strengthen their own positions and authority*”. He believed that the “*objectives of the proposed ministry would contradict those of agencies that would come under it*”. In addition, opponents argued that some agencies such as the Forestry and Irrigation Departments had existed for more than 100 years and “*had strong working relationships with other departments within the same ministry*” (Inchukul, 1997b).

Competition between government agencies is a significant impediment to effective environmental management, primarily because ‘turf wars’ discourage agencies from sharing information and working cooperatively to solve environmental problems that need to be addressed in an integrated manner. Commercial business concerns about such attitudes are reflected in the following quote from the environmental engineering industry periodical, *Asian Water and Sewage*:

*“The complexity of the Thai government system and its reluctance to release information means that projects must be carefully tracked through the system ... It is important that key government officials be kept up-to-date on technical data and new processes. Careful attention must also be paid to the competition within the bureaucracy for control of major projects ...”* (Wedel, 1995, p. 14).

These examples point to entrenched bureaucratic power struggles and resistance to change. These entrenched attitudes impede initiatives to improve the efficiency and

effectiveness of the regulatory system, and act to exclude other stakeholders from involvement in administrative decision-making processes.

These barriers to change are clearly evident in the Thai environmental impact assessment (EIA) and associated licensing processes, which are described in the following section. The EIA process has been chosen to illustrate these concerns because it is a key stage in which there is (or should be) dialogue between industry, regulators and other stakeholders in regard to the performance expectations of project proponents.

#### 5.4 THAI ENVIRONMENTAL MANAGEMENT FRAMEWORK

The Thai EIA process was established by the 1975 *Enhancement and Conservation of National Environmental Quality Act*, and later revised by the 1992 ECNEQ Act.

In brief, the process is triggered by reference to notification lists of prescribed activities<sup>6</sup>. A proposed project that fits the description of a prescribed activity is required to proceed through the formal EIA process administered by MOSTE. Preparation of the EIA report is the responsibility of project proponents, who usually engage consultants to conduct the necessary technical studies and prepare the documentation. Once complete, the EIA report is submitted to OEPP for review by an expert committee (of which there are several, to suit specific project types). If the expert committee deems the EIA to be satisfactory, the OEPP then recommends it for approval to the NEB.

This prescriptive approach has proven relatively straightforward to administer, particularly for government agencies that are short-staffed and over-worked. However, projects with the potential to cause environmental damage may be overlooked if they are not prescribed activities, and it can take some time before the list of prescribed activities is amended to include such projects<sup>7</sup>. Similarly, potentially low impact projects may be required to proceed through this lengthy process by virtue of the fact that they are deemed to be a prescribed activity, rather than being pre-screened and assessed on their merits.

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<sup>6</sup> Notification No. 3 of the Ministry of Science, Technology and Environment Re: Prescription of Type and Size of Projects or Business of Government Agencies, State Enterprises, or Private Organisations Required to Prepare Reports on Environmental Impact Analysis was issued on 22 January BE 2539 (AD 1996). The Schedule annexed to Notification No. 3 prescribes petroleum operations (pipelines, exploration, production, etc., regardless of the size of the project) as an activity for which an EIA report is required.

<sup>7</sup> For example, in January 1996, over 20 years after petroleum exploration and production commenced in Thailand, EIA reports finally became mandatory requirements for exploration activities and gas pipeline installations (*MOSTE Notification No. 3, 22 January, 1996*). Previously (since 1992), field development and production projects and oil pipelines were the only prescribed upstream petroleum activities.

Thailand was one of the first countries in Asia to introduce EIA into its policy framework, yet 25 years later, the EIA process has failed to perform as an effective environmental planning tool. Key process design deficiencies include: (i) no legislated provision for public participation in the EIA report review process; (ii) no requirement to specify measurable performance criteria which can be used to monitor compliance with the EIA report and provide verification of environmental impacts that could guide the design and evaluation of future projects; and (iii) no provision for a compliance review after completion of construction of the project, and before issuance of an operating permit by the responsible authority.

In practice, other faults emerge: (i) EIA reports are sometimes prepared after the construction of a project; (ii) environmental parameters are commonly presented and evaluated individually, such that complex interactions and indirect and chronic effects are often not evaluated; (iii) the approval process can be delayed due to the need for assessors to review extensive EIA report documentation which has been prepared to satisfy quantity rather than quality expectations; and (iv) proponents can avoid a regulatory requirement to prepare an EIA report by breaking down an otherwise "prescribed" activity/project into several smaller projects that are not prescribed (Thammasat University, 1997).

There are several apparent reasons for this performance failure, namely limits on administrative powers, inadequate administrative resources, competing agenda of administering agencies, and lack of transparency and public participation in the process. Particular problems that have arisen within the upstream petroleum sector are described below.

#### 5.4.1 Administrative Power Constraints

Administrative jurisdiction limits undermine the effectiveness of the EIA process. The gazettal of MOSTE *Notification No. 3* in January 1996 gave the OEPP legal authority to participate in the approval process for petroleum exploration activities. The OEPP has since issued a guideline for preparation of EIA reports for offshore activities (*Draft Supplemental Guideline—Offshore Oil and Gas Project Drilling Exploration and Production Phase*), in accordance with Section 46 of 1992 ECNEQ Act. Prior to this period, the Department of Mineral Resources (DMR) assessed upstream petroleum proposals.

EIA reports are submitted to the OEPP to initiate the review and approval process. The OEPP can request further details about a project if the EIA report is deemed to be incomplete or inadequate—a power that the OEPP reportedly exercises for half the EIAs submitted (Bureau of National Affairs, 1997). Although the OEPP can repeatedly request proponents to submit revised EIA reports, it does not have the legal authority to

prevent a project from commencing if the project has been approved by the responsible government agency. The OEPP lacks both licensing and enforcement authority. Only the responsible government agency (permitting agency) for the project can refuse to license a project (e.g. the Department of Mineral Resources (DMR) in the case of petroleum exploration and production projects).

Once the EIA report is approved, the permitting agency has responsibility for monitoring compliance with the terms of the EIA approval, but it is often development-oriented and has little incentive to rigidly enforce the conditions of approval for the EIA. Furthermore, there is commonly poor communication and co-operation between the OEPP and the permitting agencies, which makes enforcement of approval EIA conditions even less likely (O'Connor, 1994).

The EIA process is, therefore, cynically viewed by some proponents and bureaucrats as a mere formality that rarely results in substantial modification of project design, let alone outright rejection of the project. This cynicism can compromise the proponents' commitment to the EIA process, and hence the scope of work given to their consultants to undertake environmental studies and prepare EIA reports. During the *Yadana* gas pipeline controversy (described in Chapter 6), these concerns were expressed in the national print media, as follows:

*"EIA reports are inadequately funded by project developers themselves, who pressure the consultant firms they hire to downplay projected impacts and finish up their surveys as quickly as possible. ... There also needs to be more quality control of consultants' work, perhaps by penalising firms which produce shoddy reports, or taking away their licences altogether"* (Fahn, 1998).

#### **5.4.2 Bureaucratic Rivalry and Inefficiencies**

As is the case in many countries, regulatory administrative responsibility for environmental management of upstream petroleum exploration and production operations in Thailand is shared between the petroleum agency (DMR)<sup>8</sup> and the

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<sup>8</sup> The DMR administers the *Petroleum Act* 1971 and amendments, and the pursuant Notifications of the Ministry of Industry. Ministerial Regulations issued pursuant to Sections 14(1) and 14(2) of the *Petroleum Act* provide guidelines and procedures for petroleum development and production operations. Some of these include specific environmental protection requirements (such as Articles 3, 14 and 40, Reg. No. 5 1971; Article 1, Reg. No. 7 1971, and Reg. No. 11 1981).

environmental protection agency (MOSTE)<sup>9</sup>. From the perspective of the upstream petroleum industry, the Thai EIA process is compromised by the standard of administration and apparent bureaucratic rivalry between MOSTE and the DMR.

The DMR was involved with the petroleum industry as its primary regulator for some 20 years prior to the creation of MOSTE in 1992. Consequently, the DMR has an established working relationship with the petroleum industry to foster and facilitate exploration and production activities. According to some petroleum company interviewees, the DMR has promoted itself to the industry as a one-stop shop for all necessary regulatory operational approvals.

Mr Nopadon Mantajit, Director General of the DMR, espoused the DMR's philosophy:

*"As the chief of the Department of Mineral Resources, the regulatory body of the upstream industry in Thailand, I believe in the principle of cooperation and working together in mutual respect. I do not like to play a role of policeman catching a thief, so we have put forth every effort to work and discuss closely with our operators preventing and controlling the impact to the environment from petroleum operations. Presently, we are enjoying very good collaboration"* (Mantajit, 1998).

A senior departmental interviewee stated that the relationship between DMR and the upstream petroleum industry has been built on trust and open dialogue, and has resulted in what he believes has been responsible environmental management on the part of the DMR and the industry. For example, even in the absence of a statutory requirement for an EIA for exploration activities prior to 1996, DMR implemented a requirement for an informal environmental assessment to be conducted by companies and submitted to the DMR for review as part of approval processes for exploration and production activities.

Another example is regulatory compliance inspections of offshore petroleum facilities. These are practically constrained by the need to travel offshore to visit petroleum facilities, which for legislated safety reasons requires prior consent from the platform operator (the petroleum company) and thus precludes random, unannounced inspections. In such situations, the DMR is highly dependent upon building a strong and trusting working relationship with the platform operators, to ensure that they recognise and accept their responsibilities to manage and monitor their operational impacts.

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<sup>9</sup> Regulatory provisions pertaining to environmental impact assessment, air and water quality, and hazardous waste handling and disposal are contained within the 1992 *Enhancement and Conservation of National Environmental Quality* (ECNEQ) Act and *Hazardous Substances Act*, respectively. Departments of the Ministry of Science, Technology and the Environment (MOSTE) administer both of these.



Most petroleum company interviewees suggested that the relationship between the industry and DMR was positive and constructive. However, they did not share that view of MOSTE. MOSTE was perceived by petroleum industry interviewees to have a strong command and control culture, and prefers to dictate terms rather than to engage industry. MOSTE departments, particularly the OEPP and the Pollution Control Department (PCD), were perceived as being reluctant to involve industry in project approval processes.

A senior DMR interviewee expressed concern about OEPP's ability to effectively perform its new role, given its staff and budgetary resource limitations. Interviewees from petroleum companies and environmental consultancies also independently expressed concerns about the OEPP, namely that the OEPP is under-resourced, and cannot efficiently and effectively perform its responsibilities. The OEPP is widely perceived to be "overworked", causing backlogs in the assessment process.

The OEPP also appears to lack staff with a technical and practical understanding of upstream petroleum activities. The OEPP's lack of practical knowledge and experience in this field, and hence its steep learning curve, are perceived to result in an unnecessarily high level scrutiny of relatively low impact activities and consequential delays in the EIA approval process. One interviewee, a former Thailand Environment Institute (TEI) employee, suggested that the OEPP prefers not to receive complex EIA reports that contain project options, because of the associated extra evaluation work. It was suggested that every innovation implies something new for the OEPP, which demands more time and resources to understand, both of which they simply do not have.

Similarly, presentation of options by proponents also runs the risk of the OEPP and/or the expert review committee misunderstanding the project. One example involved a proposed petroleum exploration programme involving a seismic survey followed by exploration drilling. The OEPP officer specifically requested that two separate EIA reports be prepared to address each activity, despite the obvious duplication of effort that would be involved. The reason given was that combination of both activities in the same EIA report would "*confuse the expert committee*".

The role and performance of the expert committee was a subject of concern to the interviewees. Interviewees from petroleum companies and environmental consultancies complained that they are not given reasonable opportunity to explain project impacts and mitigation measures to the EIA review committees. The committee findings and recommendations are often considered by proponents and their consultants to be "general" or "middle-ground", ill-informed and poorly thought-through, and lack conclusive recommendations for follow-up management. Petroleum company and environmental consultancy interviewees suggested that this is in part due to the way in which the expert review committee is appointed and recompensed. The expert panel

members are reportedly paid a token amount, and therefore have no incentive to thoroughly read and critically review the often-voluminous EIA reports, particularly when they have competing work demands in their other roles as university and government agency staff.

Solutions suggested by petroleum company interviewees included some form of memorandum of understanding (MOU) established between the DMR and the OEPP to make the EIA approval process more transparent and efficient, and/or the formulation of an industry standard for EIA in conjunction with the OEPP. Industry suggestions for improvements for the administration of the EIA process included a proposal to send OEPP staff on environmental management training courses, routinely run by multinational petroleum companies for their own staff, or to an independent petroleum industry training institute, such as some of those operating in the UK.

However, the underlying process problems are not expected to be resolved easily. There appear to be bureaucratic tensions between MOSTE and the DMR that will take some time to resolve. Some interviewees perceived that DMR's power base appears to be weakening, relative to MOSTE and its departments. An interviewee reported that there is a proposal to develop further environmental legislation targeting the petroleum industry, under the umbrella of the existing petroleum legislation or the ECNEQ Act. The legislation will be developed in consultation with the DMR and the PCD, but the intent is to give monitoring power to the PCD, because the DMR is perceived to have weaker in-house environmental technical expertise and insufficient resources to undertake its statutory monitoring role.

Petroleum company interviewees expressed concerns relating to consequential uncertainty and inconsistency in regulatory processes and performance expectations, and process approval delays. This concern was compounded by a perception that DMR's position as an industry advocate appears to be weakening in the face of a strengthening and more assertive MOSTE. Upstream petroleum companies operate on tight time frames to secure and maintain competitive market advantage. An important aspect in attracting foreign investments from upstream petroleum companies is the provision of an expert regulatory agency that understands the specific issues facing the petroleum resources industry, and has the resources and skills needed to promote rapid and efficient resource development.

### **5.4.3 Lack of Third Party Involvement**

Project delays caused by regulatory approval inefficiencies may either cause companies to withdraw their business, or tempt companies to use their influence with captive regulators to take short-cuts, particularly if they perceive that the community lacks the political or regulatory power to act as an effective watchdog.

Critical evaluations of the Thai EIA process indicate that it has not been a very effective planning or decision-making tool. Its effectiveness is further undermined by the lack of transparency and limited provision for public participation. The lack of an adequate mechanism for stakeholder involvement limits the capacity of the process to adequately identify and address their needs within the conditions of project consent.

*“Potentially, one of the most important provisions under the 1992 ECNEQ Act is access to information. In practice, however, there are still multiple obstacles to citizens who require data relevant to the environmental impact of particular projects. This can be put down in part to the persistence of bureaucratic modes that reject true participation”* (Hirsch, 1997, p. 188).

These concerns are recognised and reflected in Thailand’s *Policy and Prospective Plan for Enhancement and Conservation of National Environmental Quality, 1997-2016* (OEPP, 1997):

*“Environmental promotion by individual [government] agencies is poor, lacks a clear direction, and is not mutually supportive. At the same time a core policy and an effective plan for dissemination, an information network, and development strategies for environmental information are not available. Mechanisms are lacking that would foster cooperation among government agencies, the private sector, NGOs, and local people. Further, a continuing monitoring and evaluation program is not operated. Meanwhile, the weakness of local partnerships, and poor education and promotion programs that cannot change the behaviour of people and unify local attitudes toward environment conservation are the main reasons that Thailand cannot solve environmental problems.”*

The need for improved opportunities for tripartite participation in the EIA process was recognised by observers and participants, as a result of the lessons learnt from the *Yadana* gas pipeline project (described in Chapter 6). During an interview in May 1998, a Petroleum Authority of Thailand (PTT) spokesperson suggested that many of the problems of the *Yadana* gas pipeline project stemmed from the gap between the community’s expectation of the EIA process and its actual implementation. It was also perceived that problems arose from the terms of reference for the EIA that were issued by the OEPP, and narrowly adhered to by PTT and its environmental consultants. The guidelines were generic and not sufficiently focussed on the key issues and impacts that were associated with the proposed project. The interviewee suggested that such issues could in future be resolved through joint discussions between the OEPP and the proponent to formulate the guidelines and a realistic time frame in which to undertake the necessary studies, and ensure that stakeholder concerns are addressed.

Another industry interviewee independently observed that public misconceptions about the purpose of the EIA process contributed to the conflict over the *Yadana* gas pipeline.

The interviewee perceived that the public expected the *Yadana* EIA to be a scientific research project, rather than a planning tool, and therefore based their criticism of the process on their desire for more detailed scientific studies.

Some Thai academics saw the *Yadana* project as a good learning opportunity for public participation in decision-making. In early 1998, a discussion was organised by the Social Development Studies Centre and the Peace Project of Chulalongkorn University, to find an alternative way to resolve the pipeline dispute. This was one of many efforts reportedly spurred by 200 academics from different universities, towards the organisation of public hearings regarding the pipeline scheme (Janchitfah, 1998). The aim of the academics was to broaden the views of the public, and to involve people in an issue that will affect their livelihood. Dr Nithi Iewsriwong, of Chiang Mai University was reported to say:

*“If you ask people to choose between the forest or gas, it will not make them understand the situation. It is a kind of deadlock question ... We should have learned from our past experiences. Is the project suited to the immediate needs of the country? Did it increase our national debt? How does it affect our environment? ... We should let the public know. They should be involved in this”* (Janchitfah, 1998).

Similarly, Dr Surichai Wankaew, Director of Chulalongkorn University’s Social Development Studies Centre, in Kanchanaburi, was reported to say:

*“A public hearing helps the public learn of the defects of past development projects and the weaknesses of the Environmental Impact Assessment on the gas pipeline project. Public hearings help us come to a consensus about solving immediate problems in a non-violent way. In addition, public hearings will become the standard way for Thais to solve problems in a peaceful way. It will be also the base of democratic society in the future”* (Janchitfah, 1998).

These perspectives highlight the frustrations that arise from poor participatory processes, and the importance of building a higher level of empowerment within the community, to enable them make informed contributions to decision-making.

#### **5.4.4 Implications for Industry Behaviour**

Ineffective regulatory processes can lead to frustration and risk-taking by project proponents. A fundamental problem in Thailand is the difficulty of obtaining official English language translations of all legislation. There is also an apparent lack of legal consultants who specialise in environmental law in relation to petroleum industry operations. It is therefore difficult for foreign company managers to avail themselves of the necessary knowledge to ascertain whether or not they are in full compliance. These

circumstances can develop into unacceptable business risks for companies, both in their host country<sup>10</sup>, and in their home country<sup>11</sup>.

In response to concerns about access to information on regulatory requirements, an initiative has been instigated by the exploration and production companies in Thailand to pool their collective knowledge on environmental, health and safety compliance requirements, to form a common information database. Their concerns reflect the precarious position in which they find themselves—they are subject to onerous environmental laws on paper, but a less-than-transparent regulatory administrative regime.

Furthermore, they often find that the institutional arrangements and infrastructure required to enable them to comply with regulatory requirements, simply do not exist. The administrative constraints imposed by staffing and authority restrictions in regulatory agencies create problems for project proponents when the low staffing and skill levels of permitting and enforcement agencies effectively impede response time for permit applications. Approval delays are a particular concern at the exploration stage of petroleum operations. Severe scheduling constraints are often placed on operators by data acquisition commitments made in licence agreements with the host government, joint venture expenditure approvals, and the availability of third party seismic survey and drilling contractors. Delays in regulatory approval processes can cause operators to miss windows of opportunity to engage contractors, and thus delay their projects for long periods (sometimes up to 12 months or more), until the contractors are available again.

These administrative delays can be compounded in jointly administered areas. In the Malaysia-Thailand Joint Development Area (JDA), both Malaysian and Thai legislation, standards and guidelines have been adopted and applied, even though they differ

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<sup>10</sup> Several environmental laws in Thailand impose strict criminal liability in relation to environmental offences, including the 1992 *ECNEQ Act*, the 1992 *Wild Animal Preservation and Protection Act* and the *Energy Conservation Act 1992*. In circumstances of violation of these statutes, with or without criminal intent (*mens rea*), directors/managers of offending companies are subject to criminal sanction unless that can show that they had no knowledge of the offending act or omission or did not consent to the same (Periera, 1995). Provisions for civil liability are also included in the 1992 *ECNEQ Act* and the 1992 *Hazardous Substances Act*. Under both acts, damage or injury caused by contamination or leakage from a point source/hazardous substance will render the owner/user of the point source/substance liable to pay compensation or damages (including clean-up costs). This responsibility applies regardless of whether it was intentional or accidental (with the exceptions of *force majeure* or war, an act of legal compliance, or the fault of an injured person) (Periera, 1995).

<sup>11</sup> Environmental issues are of particular importance to US public companies which, under US law, are obliged to disclose both their US and foreign environmental liabilities.

significantly in their origins, administration and standards. For petroleum exploration and production activities, operational and safety guidelines and procedures of both the Thai Department of Mineral Resources and the Malaysian PETRONAS are applied in the JDA, while production developments are subject to environmental impact assessment by both the Thai and Malaysian environmental agencies<sup>12</sup> (Polachan, 1998). The inherently political nature of these arrangements can lead to lengthy approval processes requiring intensive government lobbying by the petroleum companies to expedite the approvals<sup>13</sup>.

In the experience of this researcher, concerns about cumbersome approvals processes and uncontrollable regulatory process delays have caused some company project managers to choose to avoid following the formal EIA process in Thailand. Instead, some have chosen to rely upon their established working relationship with the DMR to argue their case, in the event that they are challenged by the OEPP. In some cases, DMR officials have indicated that they informally endorse this approach, so long as the proponents prepare an impact assessment report and submit it to the DMR prior to commencement of the proposed activity, as was previously the practice.

Where petroleum companies have complied with the formal EIA process, they have then often found that the OEPP had demanded the implementation of environmental monitoring programmes that seem to be unreasonable in the context of the predicted impacts of the project. Some interviewees perceived that their companies were being "used" by the regulators, under the guise of these monitoring requirements, to collect data for other purposes. This concern particularly applied in the case of companies operating offshore, where data collection is a relatively expensive undertaking, and the government departments are known to lack resources to collect baseline data.

Similar complaints were made about inconsistency of discharge standards applied to licenses for production water discharges from offshore production platforms. An example was cited where two companies operating in adjacent locations in the Gulf of Thailand submitted EIAs for proposed new production facilities within a few months of each other. The operations were similar in design with similar potential environmental impacts, but the discharge standards imposed by MOSTE were quite different for the two projects, for no apparent scientific reason.

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<sup>12</sup> Relevant legislation includes the Malaysian *Exclusive Economic Zone Act 1984* (Act 311) and *Environmental Quality Act 1974* (Act 127), and the Thai *Petroleum Act 1971* and *Enhancement and Conservation of National Environmental Quality Act 1992*.

<sup>13</sup> Similar circumstances have been faced by petroleum companies operating in Area A of the Zone of Cooperation in the Timor Sea, where exploration and development proposals are subject to the regulatory approvals processes of Indonesia and the Commonwealth of Australia.

Petroleum company interviewees indicated that they were frustrated with the on-going need to argue for reasonableness with Thai regulators, but were uncomfortable about the practical need to sometimes bypass the regulatory system. Such concerns about inconsistency have prompted petroleum companies to negotiate on a case-by-case basis with the OEPP to attempt to agreement on reasonable and realistic monitoring conditions, in an effort to produce a more meaningful and better value-for-money data set. However, such negotiations require considerable time and effort on the part of industry, and not all companies are prepared to persevere with this approach.

#### 5.4.5 Capacity Building Opportunities

The deficiencies in the current regulatory system are also recognised by Thai regulators, who have indicated that there is a role for capacity building by the petroleum companies whose interests are at stake.

According to the Thai Permanent Secretary of the Ministry of Science, Technology and Environment (MOSTE):

*“The time has come now ... to apply the resources of privatisation to support the sub-regional environmental agencies, by means of contracts with private sector organisations which have the capabilities to furnish to the sub-regional agencies the products they must have in-hand to do their assigned jobs. ... The change will be a shift from “pretending to do” to actually doing, including recognition by all concerned of the true costs involved ... The Petroleum Industry, as one of the largest and most environmentally sensitive (industrial categories), is in a good position to take the lead to help establish effective sub-regional [environmental management] operations”* (Snidvongs, 1998).

From a review of the problems in environment, health and safety management of production, transport, and refining of oil in Thailand, Snidvongs (1998) identified a number of local institutional strengthening needs, for which he seeks involvement from the petroleum industry. Examples include:

- i) Assistance to review the effective use of the EIA process for ensuring adequate provisions for environmental protection in the design, construction and operation of all petroleum-industry projects/operations. The scope of the review would include oil production, oil shipping and transport, oil refining, petrochemical industries, and gasoline station operations, including evaluation of use of EIA as now practiced and prospects for the future, with case illustrations.
- ii) Assistance to assess the extent of existing petroleum-related environmental protection facilities and operations in the country. The scope would include provisions for management of oil spills, adequacy of routine environmental

performance, and recommendations for filling the gaps. The recommendations would address options such as: additional legislation/regulations; additional EHS projects and programs by the private sector; more effective regulatory management of EHS hazards including use of EIA and monitoring and enforcement; and establishment of an appropriate national EHS database.

Other Thai government agencies have also identified potential bilateral and multilateral projects to address current deficiencies in the regulatory administrative system. Their suggestions include:

- i) Facilitation of co-operation between industry and its service sectors and government agencies to formulate mitigation plans for industry impacts and facilitate technology transfer (Tridech, 1998).
- ii) Formulation of a standardised code of practice for oil and gas exploration and production in the South-East Asian region, to ensure uniformity of standards, and address concerns about transboundary pollution effects (Tanhan, 1998).
- iii) Establishment of uniform standards on effluent emissions, such as oil-in-water discharge limits in marine waters (Mantajit, 1998).
- iv) Facilitation of a joint oil spill combat exercise (Mantajit, 1998).
- v) A joint government/industry study on mercury input to the Gulf of Thailand, and the effects of bioaccumulation in the food chain (Mantajit, 1998).

Supporters of industry involvement in institutional strengthening and capacity building suggest that such efforts accelerate the process of regulatory development, reduce uncertainty for industry, provide an opportunity for industry to make its preferences known in a constructive context, while personalising the regulatory system and demonstrating goodwill (James, 1998).

## 5.5 CONCLUSIONS

Evidence of the effects of ineffective regulation and associated non-compliance clearly indicate that the current Thai administrative process does not function in the best interests of administrators, industry proponents, or the public. Many researchers (including Hammer and Shetty, 1995, and Abraham, 1998) have identified that the regulatory implementation problems experienced in South-East Asian countries have contributed to environmental deterioration, discredited government authorities, and undermined commitment to achieving environmental goals.



Several reasons for the failure of Thailand's environmental protection framework have been identified. These include:

- i) Inadequate coverage by legislation; the question of authority; inadequate enforcement; and the absence of voluntary compliance (Baker, 1995).
- ii) Ineffectiveness of the conventional command and control approaches; difficulties for environmental management practices to keep pace with the rapid increase in environmental problems; and a lack of awareness and responsibility in dealing with environmental management approaches at the polluting industries level (Meyerhoeffer, 1997).
- iii) Little integration of work that examines problems that are closely interrelated. This one-issue-at-a-time approach fails to acknowledge the degree to which problems impinge upon one another, and the extent to which a solution to one may accentuate another (Rigg, 1995).
- iv) Entrenched bureaucratic power struggles and political interference in administrative decisionmaking (Techawongtham, 1998).

The Thai environmental approval and licensing processes are neither consistent nor transparent, and do not deliver uniform outcomes, in terms of licence conditions and decision-making schedules. Bureaucratic power struggles between government agencies make it difficult for industry to build trusting working relationships with all of their regulators. If the regulators are constrained by bureaucratic processes and lack of adequate financial and staff resources, and are focussed on internal power struggles, then they are not likely to be committed to delivering desirable outcomes. An environmental law is only effective if it is implemented and enforced. If the responsible regulator does not implement and enforce the law because they lack government commitment or adequate resources (such as funding and staff), then the perceived salience of that regulator by industry will be low. Furthermore, if third party stakeholders have no standing to enforce the law through civil action, or some other mechanism (such as political lobbying), then the industry has even less incentive to comply with that law.

Similarly, an environmental law that is onerous in its obligations, and is strongly enforced, may be regarded by industry to be impractical and/or too expensive to comply with, when the 'moderating factors' are taken into account. The result may again be non-compliance or a contributing factor to the company's decision to take their business elsewhere. In the absence of good working relationships with regulators, companies have no incentive to invest additional time or expense in institutional strengthening. The impacts of these decisions may also be negative, either because non-compliance may

lead to pollution or some other environmental impact, or because closure of the business may have adverse socio-economic impacts on the local community.

As the regulatory framework is currently structured in Thailand, neither industry nor the regulators have any driving incentive to improve their performance. Under these conditions it is suggested that part of the solution appears to lie in the need to provide for greater involvement of informed stakeholder participation in project scoping, decision-making and review processes, to improve transparency and efficiency. The pressure for performance improvement in both the industry and regulator sectors must come from external stakeholders. The question is how can that pressure be brought to bear in an effective manner and what impact might it have? Two recent case studies involving the petroleum industry in Thailand provide some insight to this question. These case studies are presented in Chapter 6.

# CHAPTER 6

## THAI CASE STUDIES

*“Managers should never forget that stakeholders change in salience, requiring different degrees and types of attention depending on their attributed possession of power, legitimacy, and/or urgency, and that levels of these attributes (and thereby salience) can vary from issue to issue and from time to time” (Mitchell et al., 1997).*

## 6.1 INTRODUCTION

Chapter 4 presented a profile of the upstream petroleum industry, and the external, mediating and moderating factors that may influence the social and environmental management strategies of petroleum companies. Regulatory compliance requirements are an important factor, but as indicated in Chapter 5, poorly designed and implemented regulatory systems are not effective drivers of improvements in corporate social and environmental responsiveness. It is suggested that some other mechanism is required to drive performance improvements—namely effective stakeholder empowerment.

The purpose of this chapter is to use case study examples from Thailand to demonstrate how stakeholder dissatisfaction with the environmental management performance of regulators and petroleum companies can emerge and influence their behaviour. These examples provide some insight into how a responsive regulatory framework could be developed for implementation in Thailand.

The first part of this Chapter defines the stakeholder environment through an overview of: (i) Thailand's recent political history and the key 'social forces' in Thai society (Section 6.2); (ii) Thailand's national resource development agenda (Section 6.3); and aspects of social opposition to Thailand's resource development policies (Section 6.4). The second part of the Chapter presents: (i) two case studies of recent projects that have involved social and environmental disputes between petroleum companies and sections of Thai society (Section 6.5); and an analysis of the case studies from the perspective of stakeholder claims and engagement strategies and managerial perception of stakeholder salience (Sections 6.6 and 6.7). Section 6.8 draws conclusions from the case studies and lessons that may be applied to design of responsive regulation.

## 6.2 SOCIO-POLITICAL FORCES IN THAI SOCIETY

### 6.2.1 Introduction

Chapter 5 presents an overview of Thailand's environmental regulatory framework and some of its apparent deficiencies. However, to understand why the system does not function effectively, it is necessary to fully appreciate the context within which it operates. The regulatory system of a country consists not only of its laws and regulations, but also its institutions (and their human, technical and data resources), governing traditions, cultural customs, and decision-making processes (James, 1998). The following sections provide an insight to the social-political fabric of Thai society and demonstrate how 'social forces' within Thai society influence government policy and decision-making.

As described by Baker (1995, p. 279),

*“Thailand is a constitutional democracy which has experienced fitful bouts of democracy or semi-democracy, interrupted by military rule, since the replacement of the absolute monarchy in 1932.”*

The political leadership crisis that appears to have plagued Thailand since the end of the Second World War, is evident in the ascendancy chronology presented in Table 6-1.

**Table 6-1 Chronology of Recent Thai Government Leadership**

Period	Political Leader	Reason For Leaving
1948-early 1957	Field Marshal Pibun, following military overthrow of democratically elected leader Pridi Phanomyong	Exiled under influence of General Sarit Thanarat
Mid 1957	Pot Sarasin	Forced resignation following election
Late 1957	General (later Field Marshal) Thanom Kittikachorn	Overthrown in a military coup led by General Sarit Thanarat
1958 - 1963	Dictatorship by Field Marshal Sarit Thanarat	Deceased
1964 - 1973	Authoritarian rule led by General Thanom Kittikachorn	Ousted in a student-led civil rebellion
1973-1975	Sanya Thammasak	Lost election arising from civil society call for elected government
1975-1976	Kukrit Pramoj	Dissolution of Parliament
1976 (Apr) - (Oct) 1976	Seinee Pramoj	Overthrown in a military coup
1976-1977	Right-wing government led by Tanin Kraiwichien	Overthrown in a coup
1977-1980	General Kriangsak Chomanan	Dismissed as a result of dissatisfaction in the parliament
1980-1988	General Prem Tinsulanonda	Dissolution of Parliament
1988-Feb. 1991	Civilian government led by Chatichai Choonhavan, rightist Chart Thai Party coalition	Overthrown in a military coup amidst accusations of government corruption
Feb 1991-April 1992	‘National Peace Keeping Council’ – appointed Anand Panyarachun as interim Prime Minister	Scheduled election
April 1992 - May 1992	Military-appointed PM General Suchinda Kraprayoon	Dismissal resulting from civil pro-democracy demonstrations

Table 6-1 Chronology of Recent Thai Government Leadership

Period	Political Leader	Reason For Leaving
May 1992 - September 1992	Anand Panyarachun reinstated as interim Prime Minister	Scheduled election
September 1992 - July 1995	Chuan Leekpai, leader of a four party coalition with a 5 seat majority	Lost election amidst accusations of cabinet corruption
July 1995 - November 1996	Banharn Silpa-archa, Chart Thai coalition	Lost election amidst accusations of corruption
November 1996 - June 1997	Retired Army Commander General Chavalit Yongchaiyudh, leading the New Aspiration Party	Resigned amidst accusations of corruption. General election followed.
November 1997 - present (2000)	Coalition led by Chuan Leekpai	

Sources: Hewison (1997b), Wright (1991), researcher's records.

As the chronology suggests, cronyism and corruption have been endemic problems in Thai Government and Thailand's political economy. Amidst the atmosphere of frenetic natural resource development which has ensued over the last 30 or so years, corruption has reportedly been rife during negotiations on deals between government agencies and developers. Community leaders are often "bought off" and vote-buying during government elections is believed to be widespread in the largely rural, poorly educated population base.

Consequently, an urban-rural divide has appeared in the voting patterns of Bangkok and rural electorates. Bangkok voters blame rural voters for electing corrupt governments and are increasingly likely to view the electoral system as being loaded against the emergence of efficient and clean government (Hewison, 1997a).

These issues and concerns reflect the influence and actions of key factions that have emerged within contemporary Thai society. Phongpaichit and Baker (1997) have identified six identified 'forces' in Thai society: mandarins, metropolitan business and technocrats, provincial business, salariat, peasants, and urban workers.

*"Many [of these forces] are strategic alliances of uncertain duration, while others are class interests in the process of definition. Most of these forces do not have a clear institutional base; a key feature of Thailand's transitional state is the extraordinary fluidity of the institutional frame. Many of these forces are engaged in attempts to create new institutions to solidify their power, while others are trying to adapt or destroy existing institutions"* (Phongpaichit and Baker, 1997, p. 22).

The first five of these six 'forces' are of direct relevance to this study.

### 6.2.2 Mandarins

The mandarins have their origin in the ruling class that dominated Thailand between the eighteenth and early twentieth century. This faction historically consisted of a landowning nobility and mandarin bureaucrats, who derived their status, income and power from their position in the structure of government. Their source of income and wealth was linked to revenues—official and unofficial—derived from state service, to which they managed to establish hereditary rights (Phongpaichit and Baker, 1997).

Following the Second World War, this faction projected the ideology that they derived their authority from the supreme power of the monarchy, rather than from the constitution or any other democratic belief (Phongpaichit and Baker, 1997). Up until 1988, this conservative faction dominated Thai society through their vanguard, the military.

The influence of the bureaucrats (alias the mandarin) is clearly evident in the state-owned enterprises. Prior to the mid-1980s, infrastructure services were almost entirely provided by state enterprises, often in monopoly positions. These enterprises operated under various ministries and departments, but most of the state enterprises answered to the Ministry of Finance on their financial performance. Historically, state enterprises in infrastructure and utility services were known for their slow and expensive development, and inefficient management and corruption. In addition, they were frequently used as political tools or as sources of funds for politicians and the military (Handley, 1997).

In 1984, Thai government planners announced a programme to privatise state enterprises responsible for infrastructure development or to privatise the infrastructure projects themselves. From 1987, privatisation became a central political focus (Handley, 1997). Privatisation included various options: issuing shares on the Stock Exchange of Thailand (SET) and slowly reducing government control; granting concessions to own and operate infrastructure services (permanently or temporarily); or corporatising the enterprise and its management.

In the 1990s, General Chavalit Yongchaiyudh<sup>1</sup> projected himself as the new leader of mandarin conservatism and, together with ex-soldiers and ex-bureaucrats in parliament, played an influential role in stemming the rising tide of representative politics. The long term agenda of this faction is to achieve political reforms to provide a more secure defence of their conservatism:

*“The core concern of mandarin conservatism is the protection of the bureaucrat’s right to govern. This idea still commands widespread support in the military and in parts of*

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<sup>1</sup> Thai Prime Minister between November 1996 and June 1997.

*the civilian bureaucracy, especially the Ministry of the Interior. It has also solicited support among certain sections of business, among the urban lower middle class, and in the provinces” (Phongpaichit and Baker, 1997).*

This philosophy struck a chord with opponents of privatisation. The leadership of state enterprises often perceived privatisation as a threat to their established business practices, while staff perceived a threat to job security. In response, they commonly allied themselves with bureaucrats, politicians and military leaders to resist or redirect privatisation plans, and, inevitably, compromises were usually made (Handley, 1997). Most frequently, the compromises involved the SET, enriching many, but limiting progress towards the original goals of privatisation.

For example, in 1993, the state-owned petroleum company, the Petroleum Authority of Thailand (PTT) listed its corporatised capital-intensive subsidiary, PTT Exploration and Production (PTTEP), on the SET. PTTEP had significant assets in oil and gas reserves that should have given its shares a high market price. However, according to Handley (1997), the handling of the listing suggested that it was used mainly to enrich those who obtained share allocations early, rather than to earn the government a fair price for its hydrocarbon assets. The shares were priced at 33 baht (then equivalent to US\$1.30) to the public, but brokers reported that many were allocated to board members, management, selected senior bureaucrats, military officials and politicians. One underwriter reportedly suggested that the underlying asset value of the shares was deliberately and grossly understated to benefit initial (and inside) subscribers to the share issue.

*“Only after the shares were placed with those who could get them, did PTT steadily release information on the extent of assets, hydrocarbon reserves and future earnings potential. The result was that the share price quickly doubled and continued to increase to reach a peak of above 300 baht (US\$12) within one year, ... despite the fact that there were no surprising additions to the company’s assets after listing. ... In sum, the PTT management was not reformed and the state did not reap the value of its valuable assets. However, those investors with inside access to information and stock did profit. There was no public, political or bureaucratic objection to this. PTT E&P is still virtually controlled by PTT, which means its finances are still implicitly guaranteed by the Ministry of Finance” (Handley, 1997, pp. 110-11).*

This example demonstrates the extent to which corruption, cronyism and patron-client ties operate in Thai society, enabling bureaucrats to retain a firm hand on government agenda.



### 6.2.3 Metropolitan Business People and Technocrats

This faction is grounded in the large business corporations that are based in the nation's capital, Bangkok. Over the last 10 years or so, in response to the economic problems and opportunities of the country's rapid economic growth, and the threat posed by a provincial takeover of parliament and cabinet, this element of business has moved towards an alliance with those senior technocrats of the mandarin faction responsible for economic management.

*This small group derives its influence from the command of money and position. They are responsible for making and implementing economic and other policies. Metropolitan business has a well-organised lobby and acts as an almost invisible force in the political background. Their alliance with the economic technocrats has emerged around a shared proposition about the economy, its management and its future: that Thailand will develop into a modern, wealthy society through the combined rationality of efficient technocratic management and efficient business development (Phongpaichit and Baker, 1997, p. 25).*

According to Phongpaichit and Baker (1997), this new generation of Thai technocrats emerged after the US withdrawal from the region in the mid 1970s, and the subsequent reduction in the role of foreign experts in Thai technocratic institutions. Many members of this new generation of technocrats have been trained overseas, especially in the US and Japan, and hence they commonly hold a wider perspective on the economy and its potential. They have helped to create a new arena of open debate over economic strategy and policy-making.

While some of these technocrats come from traditional Thai bureaucrat families, many come from the second and third generation Chinese immigrant families that were the basis of the major business groups in Bangkok. From the early 1980s, these technocrats were often employed by the large metropolitan businesses because they offered badly needed business skills, as well as family (including marriage) and professional connections to strengthen the linkages between big business and the government. Through these linkages, technocrats and business leaders have been able to play an indirect role in moulding economic policy.

Bonding between the technocrats and the urban business sector was strengthened in the late 1980s, when their growing influence over policy-making was checked by the formation of the new Chatichai cabinet, dominated by provincial business people.

*"Both groups found themselves locked in conflicts with provincial politicians in cabinet. Both realised that the electoral system would inevitably deliver a parliament with a heavy provincial bias" (Phongpaichit and Baker, 1997).*

*“In sum, senior technocrat and metropolitan business people have come together on the issue of rational management of the modern, globalising economy. For the technocrats, this issue represents the realisation of their professional purpose. For business, it is a strategy for sustaining the economy. They come together, also, in common opposition to what they perceive as the main threat against rational management—provincial business politicians, who are seen as ready to sacrifice long-term growth and stability to allow the provinces to catch up with the city, or just to engineer personal or sectional gain.”* (Phongpaichit and Baker, 1997, p. 29).

In the 1990s, the business sector continued to strengthen its alliance with the middle class. Business and the middle classes push ongoing restructuring of the state, its apparatus, its operational logic, and its ideology.

*“By its nature this process will continue to pose a threat to conservative values, the old order and institutions, and entrenched interests”* (Hewison, 1996, pp. 88-9).

#### **6.2.4 Provincial Business**

Provincial business people became increasingly rich and powerful during the 1980s, and established a commanding position in the Thai parliament and cabinet. Their income is primarily drawn from four areas: (i) the cash crop expansion, in which local merchants play a critical and profitable linking role between the agribusiness company and the cultivator; (ii) investment in trading and service businesses buoyed up by local demand (these included highly profitable local monopolies such as distribution for local whisky, agencies for the sale of vehicles, and later, hotels, large retail developments and speculation in land); (iii) from government contracting for construction work and the supply of materials (budgets for building roads, water works, dams and public buildings in the provinces increased steeply from 1960, and large profits were able to be extracted, particularly through collusion with local officials); and (iv) from an array of semi-legal and illegal businesses including logging, smuggling, gambling, gun-running and drug-trading (Phongpaichit, and Baker, 1997).

*“The close links with officials they developed in these business activities drew them into the political milieu. Their wealth and business networks proved highly effective in electoral politics. These magnates were well placed to manage the large multi-member parliamentary constituencies centred on the provincial capitals where they had their business bases. By distributing their patronage around the locality, mobilising their business networks for canvassing, handing out money during elections and promising to bring central government funds into the province they dominated the local electorates. Since provincial constituencies supplied almost 90% of seats, they also dominated the parliament, and eventually the cabinet, as demonstrated by the emergence of Chart Thai as the leader of the new coalition government at the 1988 election”* (Phongpaichit and Baker, 1997, p. 30).

Since the September 1992 election, provincial politicians have dominated the Thai parliament (with the exception of Chavalit's cabinet of 1996-97), and predictably these governments have been accused of corruption, vote-buying during election campaigns, and other socially-undesirable activities. The 1992-95 Chuan government and the 1995-96 Banharn government were both ousted by electors as a consequence of their poor reputations (Hewison, 1996; Phongpaichit and Baker, 1997). The present Chuan government, which holds a narrow majority in parliament, is regarded by many with suspicion.

### 6.2.5 Salariat

Over the 30 year period, between the 1960s and 1980s, a white-collar working class, labelled the 'salariat', emerged in Thailand.

*"They are children of the new, globalising world. They grew up in the period of American influence and matured in the age of global information—CNN, MTV, satellite news and the internet. They want to see Thailand as a modern nation—not just prosperous, but sophisticated and politically mature"* (Phongpaichit and Baker, 1997, p.33).

A major influence on this faction was the experience of student-led pro-democracy period between 1973-76 and its repressive aftermath. The students who protested in the 1970s were the vanguard of this new class, and many have gone on to join business, politics, the print media and academia, where they continue to be vocal critics of government policies and practices. At the core of salariat politics are *"the radical ideas of the 1970s mellowed by the experience of the subsequent two decades"* (Phongpaichit and Baker, 1997).

They support the drive for economic growth, but they want growth to bring a society marked by openness, transparency, fairness, rights and participation. Observers suggest that this group is *"too small, isolated and fragile"* to mount a serious electoral challenge and thus has been unsuccessful in its attempts to enter Thai parliamentary politics (Phongpaichit and Baker, 1997). Excluded from the formal politics of parliament, they focus on controlling the agenda of public political debate outside the parliamentary system—through the press, the public platform, and non-governmental organisations (NGOs).

The print media, in particular the *Bangkok Post* and *The Nation*, have emerged since the 1980s, with the support of the salariat, to be formidable critics of contemporary Thai politics and business. The newspapers openly host debates on political reform; publicise the abuses of power that had previously seemed part of parliamentary privilege, expose politicians with dubious pasts, investigate scandals which ministers attempt to hide, and criticise government policies, especially on the subject of the environment. The Chuan

government (1992-95) was brought down after a campaign by the newspaper *Thai Rat* to expose abuses of a land distribution scheme in Phuket. Within six months, the successor Banharn government was also put on the defensive by press allegations of corruption on arms deals, stock manipulation and land speculation (Phongpaichit and Baker, 1997). The case studies presented later in this chapter indicate the important role that the Thai print media play in elevating the profile of environmental and social debates, and consequential effects they can have on corporate perceptions of associated business risks<sup>2</sup>.

In addition to the print media, the other main outlets of salariat politics are NGOs involved in rural development, education, and provision of legal help and health care to those who were excluded from government schemes. Others work to extend civil rights through constitutional changes, legal and judicial reform, and liberalisation of the media.

For example, the ECNEQ Act 1992 (enacted by Anand's pro-NGO administration) specifically acknowledges the legitimacy of NGOs and their role in environmental management decision-making. The Act stipulates that in the event that registered NGOs do not receive co-operation from the appropriate agency or agencies, they may request help from the NEB and that upon the NEB's recommendation, the Prime Minister has the power to direct the agencies to render assistance. Given this statutory endorsement, Baker (1995) observed that NGOs have increasingly played a role as one of the extra-bureaucratic forces in Thai society, sometimes countering the interests of economic or private interest groups and the government.

The power of citizen opinion has been shown to be influential in achieving reform in Thailand when governments sense that their political power base is vulnerable. As observed by Palmlund (1997), recent Thai governments, eager to retain public support, have been sensitive to criticism from citizens and powerful NGOs, and have often reacted with changes in government policy. A significant example is the 1997 enactment of a new national constitution, in response to public demands for constitutional reform. The new constitution was formulated with extensive public input

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<sup>2</sup> It should be noted, however, that the relative freedom of speech expressed by the Thai print media is somewhat unique in South-East Asia, and is certainly not representative of the level of freedom that exists in other sectors of the Thai media, such as the government-owned television stations.

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and is progressive in its provisions for community involvement in government decision-making and citizen standing to enforce accountability by state agencies and enterprises<sup>3</sup>.

### 6.2.6 Peasants

Agrarian expansion, up to the middle of the 20th Century, created a large peasantry in Thailand. The first phases of industrialisation following the Second World War converted only a minor percentage into urban-dwellers. Currently around 60% of Thailand's population still live in the villages. According to Phongpaichit and Baker (1997), both the old rulers and the new urban forces have conspired to exclude the peasantry from formal political representation. Their political influence is also undermined by two other factors. Firstly, the highly disparate character of the peasantry—at one end of the spectrum, peasants have been converted into moderately wealthy, export-oriented, industrial farmers; at the other end, many still practice a near subsistence production regime in the forest fringe. Secondly, for decades the State has taken care to dissipate any sign of peasant political organisation. While bankers, industrialists and traders have well recognised lobby associations, and even urban labour federations, the peasantry has not been permitted equivalent representation.

Nevertheless, the expansionist nature of Thailand's development path means that peripheral areas and their inhabitants have been drawn into mainstream political and economic currents (Hirsch, 1997). With this development has come the rise of peasant politics, which derives its power from its large constituency and growing resentment of the urban monopolisation of wealth and resources. Two processes, in particular, are believed to have shaped the rise of peasant politics since the early 1980s. Each is related to the rise of the urban economy. The booming urban economy draws in labour from the villages, returning them home equipped with new knowledge and ideas. This experience exposes them and, indirectly, their families, to the revelation of the widening income gap and attitude between the rural and urban populations. The experience also often

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<sup>3</sup> 1997 Constitution (The Council of State, 1997): Section 56. Para. 2. Any project or activity which may seriously affect the quality of the environment shall not be permitted, unless its impacts on the quality of the environment have been studied and evaluated and opinions of an independent organisation, consisting of representatives from private environmental organisations and from higher education institutions providing studies in the environmental field, have been obtained prior to the operation of such project or activity, as provided by law. Para 3. The right of a person to sue a State agency, State enterprise, local government organisation or other State authority to perform the duties as provided by law under paragraph one and paragraph two shall be protected.

1997 Constitution (The Council of State, 1997): Section 59. A person shall have the right to receive information, explanation and reason from a State agency, State enterprise or local government organisation before permission is given for the operation for any project or activity which may affect the quality of the environment, health and sanitary conditions, the quality of life or any other material interest concerning him or her or a local community and shall have the right to express his or her opinions on such matters in accordance with the public hearing procedure, as provided by law.

equips the migrant workers with political training in urban protests and trade union organisation (Phongpaichit and Baker, 1997).

Consequently, peasant politics are most commonly manifested in agitation, particularly in relation to their concerns about urban intrusion on rural resources of land, forests and water. NGOs have helped to organise peasant protests, to forge a link with environmentalism and to help articulate an ideology of peasant defence, based on the precept that the rural community and economy have a right to survive. This ideology has challenged the legitimacy of the 'development theory' that lay behind 'urban intrusions' such as hydro-electric dams, eucalyptus plantations and polluting factories (Phongpaichit and Baker, 1997).

The agenda of, and the interactions between, these key 'forces' within Thai society, have been highly influential in both setting and modifying national natural resource development agenda.

### 6.3 NATIONAL DEVELOPMENT AGENDA

#### 6.3.1 Introduction

State-led development began in Thailand in 1947 and continued in a somewhat unstructured manner until 1958. Following an economic assessment of Thailand in 1957-58, the World Bank produced a report recommending that the Thai government become more involved in economic planning to boost the country's infrastructure and lead the way to future industrial development. In the same year, Field Marshal Sarit Thanarat came to power in a military coup. Acting on the advice of the World Bank, the new Sarit government initiated more organised intervention in the economy. An initial action was to establish an Economic Development Board, to help define goals and plan Thailand's development. Thailand's first National Economic Development Plan was issued in 1961.

Thailand thus entered into an era of rapid social and economic development. During the 1960s the annual growth rate in the Gross Domestic Product (GDP) averaged nearly 8%. After enduring an economic downturn in the mid-1960s, Thailand again experienced impressive economic growth rates (Baker, 1995). Between 1987 and 1995 the average annual growth rate of the GDP was 9.5% (Tan, 1997). During the latter period, state mechanisms were reformed, the government engaged in a programme of privatising state enterprises, and foreign investment was promoted through liberalisation of the money market and the capital market (especially for infrastructure projects), and "*an almost completely free energy market*" (PTT, 1997a). In January 1997, PTT Governor Pala Sukawesh confirmed that the Thai government "*is serious about privatising most state enterprises to make them more competitive, especially when full-scale business liberalisation gets underway after 2000*" (Tham, 1997a).

### 6.3.2 Petroleum Sector

Petroleum resource development is a prime business objective of the Thai government. Since 1991, the Thai government has developed a number of quite progressive energy policies, signalling a shift in the direction and character of Thailand's energy sector. The key objectives of Thailand's energy policies are to: (i) ensure continued availability of energy supplies; (ii) increase the role of the private sector in energy markets by deregulation, privatisation and the encouragement of competition; (iii) move towards market pricing of energy, allowing suppliers to cover costs and earn a reasonable rate of return; (iv) promote energy conservation through greater energy efficiency; and (v) minimise the environmental problems associated with energy consumption (IEA, 1996). The government's reforms have also specifically sought to give priority to gas as a fuel for power generation, as a substitute for fuel oil, and as a feedstock for petrochemicals, basic industry and agriculture.

In 1996, Thailand produced 1,284 million cubic feet per day (MMCFD) of natural gas. Most of that (72.5%) was used for fuel for power generation (in power stations that have been built or adapted to use gas). 10.7% was used as fuel in industrial plants. The remaining 16.8% was processed in gas separation plants into liquefied petroleum gas (LPG) for household and vehicle applications and separated as raw materials for the petrochemical industry (PTT, 1997b).

The majority of Thailand's gas is currently produced from offshore fields in the Gulf of Thailand, although small oil and gas fields also exist onshore, such as the Thai Shell-operated *Sirikit* field in central Thailand, and the Esso-operated *Nam Phong* field in the Northeast (see Figure 6-1). A number of foreign petroleum companies, small and large, have concessions in the Gulf of Thailand, but the activity is currently dominated by Unocal Thailand, and more recently, PTTEP, which took over operatorship of the *Bongkot* field from Total in July 1998. Some 95% of the natural gas used in Thailand is procured from the Gulf of Thailand's *Erawan*, *Satun*, *Funan*, *Baanpot*, and *Platong*, and other fields, operated by Unocal Thailand (PTT, 1997b). There have been only limited oil discoveries offshore, but condensate (very light crude oil) is produced in quantity from some gas fields such as *Erawan*. Condensate is loaded into tankers offshore and shipped to condensate refinery facilities near Rayong (Figure 6-1).

Further prospective gas deposits are believed to exist in Thailand. A Thai Department of Mineral Resources study indicates that there are at least 6 trillion cubic feet (TCF) of dry gas<sup>4</sup> in Northeast Thailand, 11 TCF of wet gas in the Gulf of Thailand and 4 TCF of

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<sup>4</sup> 'Dry gas' is natural gas that is low in associated liquids, as compared with 'wet gas'. 'Associated gas' is natural gas found in association with oil, either dissolved in the oil or as a cap of free gas above the oil in the reservoir.

wet gas in the Andaman Sea. There are also believed to be another 1 MMCF of associated gas in central Thailand (PTT, 1997b). The future prospects for oil and gas in the Gulf of Thailand are generally regarded as small by world standards, but in many cases are worthwhile to explore. The typical field contains about 1 TCF of recoverable gas reserves (Bartlett and Baker-Rogers, 1995).

Thailand's rapid industrial growth over the last decade or so has presented a number of challenges for the government, not least of which has been keeping pace with the demand for infrastructure development. Gas produced from the offshore fields is transported by pipelines to a gas processing plant located at Map Ta Phut (Rayong Province) on the industrialised eastern seaboard (Figure 6-1). All existing supply pipelines are owned and operated by PTT (IEA, 1996), however the shortcomings of state oil company-led resource development and supply are becoming evident. Traditionally, PTT has both funded and operated such infrastructure, but as a result of Asian currency crisis and associated financial upheaval in Thailand, PTT's budget was significantly reduced by the Thai government. For example, the proposed 1998 budget of 29 billion baht (then equivalent to US\$739 million) was reduced to 20 billion baht (then equivalent to US\$510 million).

In late 1998, Battersby (1998d) reported that private sector investment was being sought by the Thai Government to provide part of the 36 billion baht (then equivalent to US\$910 million) needed for the following components of Thailand's First Gas Pipeline Master Plan (1997-2003)<sup>5</sup> (PTT, 1997b): (i) a pipeline to link the *Benchamas* and *Tantawan* fields in the Gulf of Thailand; (ii) onshore gas pipelines to link Rayong and Bang Pakong; (iii) a pipeline link between the Khanom gas separation plant in Nakhon Si Thammarat and Surat Thani power station; (iv) pipelines to link the Surat Thani power station to Krabi and Thap Sakae; and (v) an offshore gas compression platform for the Gulf of Thailand.

In addition to broadening the role of the private sector, improved relations between Thailand and other South-East Asian countries have been actively promoted by Thai governments in the interests of improving access to petroleum resources. During his term as Thai Prime Minister (1988-1991), Chatichai Choonhavan made a call for "*turning Indochina's battlefields into market places*" (Hirsch, 1995, p. 252), which signalled the start of an intensive Thai government effort to build investment (state and private sector) and trade ties in Indochina and Myanmar.

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<sup>5</sup> This was modified to become a down-sized second edition plan in 1997 in light of the economic crisis. The natural gas transportation system Master Plan (2nd Ed.) which began in 1998 will continue for nine years and includes six onshore and offshore projects (PTT, 1997b).





Figure 6-1 : Petroleum Production Fields and Pipelines

Thailand has chosen to adopt a policy of 'constructive engagement' with its former political rival, Myanmar. In December 1988, a team of 80 senior military officers, led by then army chief General Chavalit Yongchaiyut (later a Thai Prime Minister), visited Myanmar's newly installed military-run State Law and Order Restoration Council (SLORC). Later, in July 1994, the presence of an invited delegation from Myanmar at the Association of South-East Asian Nations (ASEAN) meeting in Bangkok, indicated strengthening economic ties between the Thai and Myanmar governments and the desire to avoid politically isolating the SLORC regime (Hirsch, 1995). A recent outcome of the amicable inter-state relations are the gas sales agreements signed between the governments of Thailand and Myanmar, for the supply of natural gas from Myanmar's *Yadana* and *Yetagun*<sup>6</sup> gas fields to Thailand.

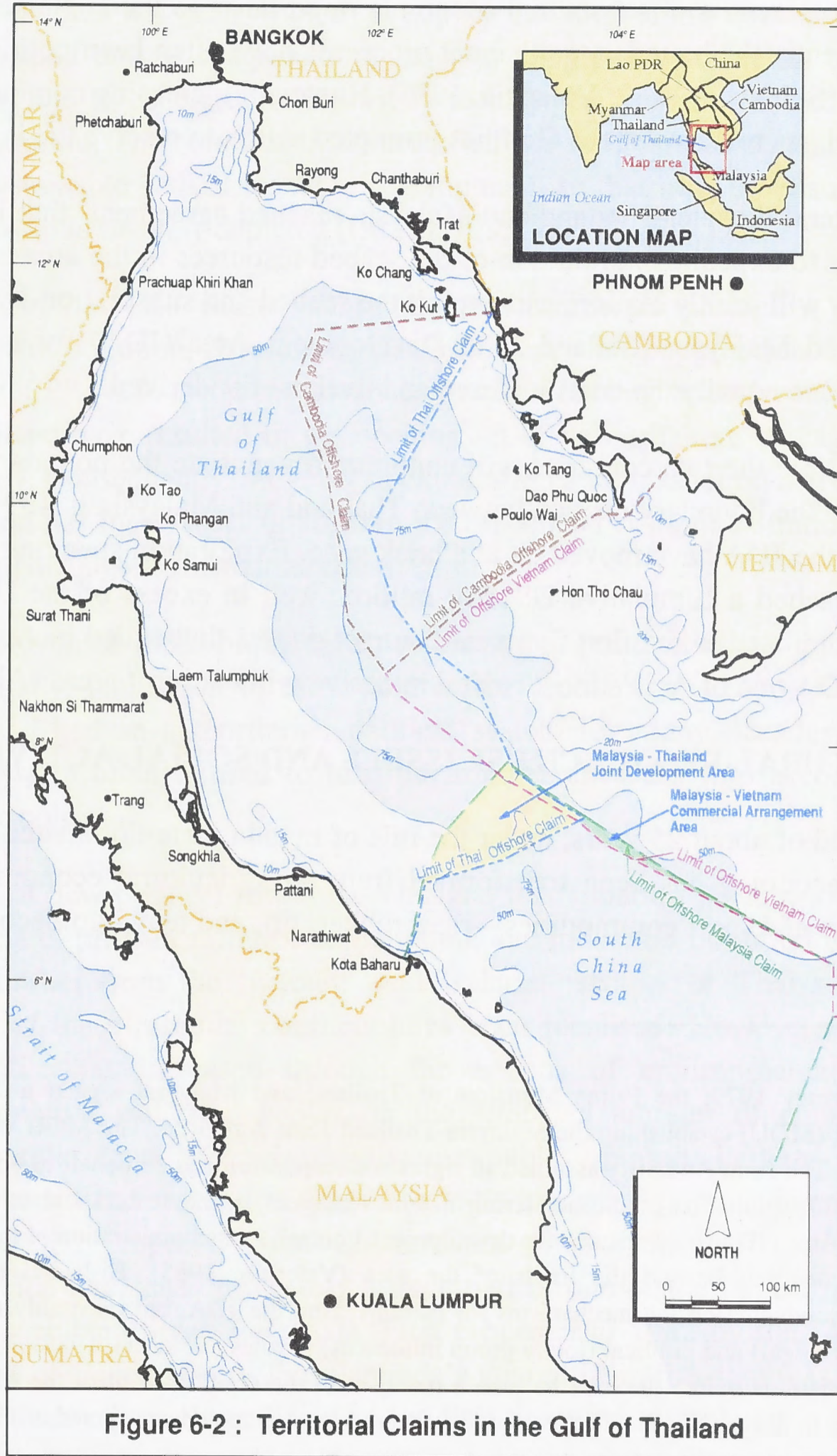
Cooperation is also being fostered between Thailand and its neighbours in the interests of settling territorial sea boundary disputes and opening access to offshore petroleum resources in the Gulf of Thailand. A significant constraint to offshore petroleum exploration and resource exploitation in the Gulf (and several other prospective offshore areas in the region) has been bi-lateral and tri-lateral disputes over territorial sea boundaries, which are subject to the provisions of the Law of the Sea Convention of 1982<sup>7</sup>.

The seabed of the eastern Gulf of Thailand is subject to unilateral jurisdictional claims by Vietnam (lodged by the former South Vietnam in June 1971), Cambodia (lodged in July 1972) and Thailand (lodged in May 1973) (Valencia, 1985). The south-western Gulf of Thailand is subject to overlapping unilateral claims by Thailand, Malaysia, Cambodia and Vietnam (see Figure 6-2).

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<sup>6</sup> The *Yadana* project is described in Section 6.5.3. The offshore *Yetagun* gas/condensate field development is 32.3% owned by Premier (operator), 36.3% by Petronas Carigali, 14.2% by PTTEP and 17.2% by Nippon Oil Exploration. The field has around 1.8 trillion cubic feet (TCF) of gas and around 48 million barrels (bbl) of condensate in reserves. The partners have signed a 30-year sale and purchase agreement with Thailand's PTT for an initial delivery of 200 million cubic feet per day (MMCFD) of gas by pipeline, starting in 2000 (Tham, 1998a).

<sup>7</sup> Article 74 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) requires the delimitation of the exclusive economic zone (EEZ) between states with opposite or adjacent coasts to be effected by agreement on the basis of international law in order to achieve an equitable solution. Pending agreement on a delimitation, state parties are obliged to make every effort to enter into provisional arrangements of a practical nature (Article 74.3). Such arrangements shall be without prejudice to the final delimitation. UNCLOS takes precedence over the preceding four Geneva Conventions, including the 1958 Convention on the Continental Shelf, but does not alter any inter-state agreements that have been made under these Conventions. In particular, bilateral agreements relating to the delimitation of the continental shelf will be respected, as will other international agreements or Conventions regarding the use of the sea and protection of the marine environment (Taverne, 1994).



As the disputed national continental shelf and exclusive economic zone (EEZ) boundaries cut through hydrocarbon-prospective sedimentary basins, the issue of boundary placement is of substantial economic importance to the contending countries, and consequently the boundary settlement processes have often been politically difficult and lengthy (Siddayao, 1980; Valencia, 1985). However, increasing commercial interest in the natural gas reserves of the Gulf has prompted action to resolve the issues.

In their bilateral dispute, Thailand and Malaysia reached agreement<sup>8</sup> that it was in their best interests to expedite exploitation of the seabed resources in the area of overlapping claims. They will jointly explore and exploit the seabed and subsoil non-living resources in the defined Malaysia-Thailand Joint Development Area (JDA) for a period of 50 years, and share equally the costs incurred and the benefits derived.

During this time the two countries will continue to negotiate the boundary<sup>9</sup>. Following settlement of the boundary dispute between Thailand and Malaysia in 1994, exploration activities in the JDA have moved on at a brisk pace. Exploration spending to September 1997 had reached a cumulative US\$210 million, well in excess of the US\$43 million minimum stipulated in the first five-year contract phases that ended in April 1999. This makes the JDA one of Asia's most capital intensive wildcatting<sup>10</sup> areas (Ahmad, 1997f).

#### 6.4 NATURAL RESOURCE USE ISSUES AND SOCIAL ACTIVISM

Over a period of about 25 years, under the rule of mandarin-dominated governments, Thailand's economy has been transformed from an agricultural economy based on a narrow range of export commodities—rice, rubber, tin, and teak—to become one of the

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<sup>8</sup> On 21 February 1979, the Prime Ministers of Thailand and Malaysia signed a Memorandum of Understanding (MOU) establishing the Malaysia-Thailand Joint Authority. The MOU was ratified on 24 October 1979. The Joint Authority assumed all rights and responsibilities on behalf of both parties for the exploration and exploitation of the non-living natural resources of the seabed and subsoil in the Joint Development Area (JDA), and also for the development, control, and administration of the area, as well as of deposits extending beyond the limits of the area (Valencia, 1985). Bi-lateral discussions were subsequently conducted on the mechanisms for administering the JDA, but inevitably they encountered some practical (legal) and political (lobby group influences) hurdles (Valencia, 1985). It took 11 years of complex negotiations before the idea became a reality with the establishment of the Malaysia-Thailand Joint Authority in May 1990. The first two production sharing contracts were signed in 1994.

<sup>9</sup> A similar pact has reportedly been agreed between Malaysia and Brunei, and the Philippines and Vietnam, while Vietnam has agreed to develop its continental shelf jointly with Thailand and Malaysia (the Malaysia-Vietnam Commercial Arrangement Area, offshore peninsula Malaysia) (*Oil & Gas Journal*, 1997b), and Thailand is reportedly negotiating to settle its dispute with Cambodia.

<sup>10</sup> A wildcat well is an exploration well drilled without knowledge of the contents of the underlying rock structure.

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world's 'newly industrialised countries' (Baker, 1995). However, this industrialisation and rapid economic growth have relied in part on the country's substantial natural resource base. This base has been 'mined' to supply the burgeoning domestic demand for timber, fuel-wood and new agricultural land, to supply raw materials to export-oriented industry, and to generate the electricity to meet the demands of industry and increasing urbanisation. The result of this intensified use of Thailand's natural wealth has been an unsustainable path of resource development, so that now the resource base for continued growth is severely depleted (Hirsch, 1995; OEPP, 1997).

Rapid development has also caused substantial environmental problems, including severe air and water pollution, deforestation and erosion, and inappropriate hazardous waste disposal (OEPP, 1997). Recent advances towards settling boundary disputes in the Gulf of Thailand have resulted in the opening up of new offshore acreage for the petroleum industry. Consequently, the level of exploration and production activity in the central Gulf region has increased, but so have the associated risks of pollution (water- and air-borne) and damage to the marine ecosystem.

Several factors prevented these problems from becoming political issues in Thailand until recently. Firstly, realisation of the extent of the problem was slow to develop. Secondly, Thailand had an authoritarian political system for many decades, and the leaders of this system often refused to take environmental issues into account when making economic policy.

The introduction of new political forces has changed this situation (Baker, 1995). The substantial impacts of primary resource exploitation, and industrial pollution have been confronted by conflict from the 'peasant' and 'salarial' sectors of Thai society, in particular. Many of these resource conflicts have been localised. However, since the 1980s, their profile has increased through the actions of environmental groups, campaigning journalists and rural NGOs. In the 1980s, a number of controversies emerged in the public arena and helped galvanise public opinion. Perhaps the most important event—one that for the first time attracted widespread popular interest—was the opposition to the proposed Nam Choan Dam on the Khwae Yai River in Kanchanaburi, which threatened to destroy a large part of one of the largest remaining forest regions in mainland South-East Asia. First proposed in 1982 by the Council of Ministers (cabinet) of General Prem Tinsulanonda's government, the dam was to be the last of a series of three on the River Khwae—the first two were completed in 1978 and 1981 (Baker, 1995).

Previous hydro-electric dam projects constructed by the state-owned Electricity Generating Authority of Thailand (EGAT) had produced a legacy of displaced villagers and destroyed forests, in the course of providing the urban areas (especially Bangkok) with electricity. The proposed Nam Choan Dam met with considerable opposition,

beginning with a campaign by the university environmental groups under the banner of an NGO. A debate in the media followed, which pitted EGAT against a miscellaneous group of students, government officials, and local residents. The plan was put aside for further consideration in October 1982. When it was revived in 1985, there was again intense public debate (Baker, 1995). The World Bank withdrew funding in 1987 (Seda, 1993) and the plan was shelved in 1988 by Chatichai's civilian government.

According to Baker (1995), several factors account for the successful opposition to the dam. First was the growing public realisation of the adverse effects of the existing dams. The local populace wanted to know why it had to suffer so that Bangkok could have additional electricity. Secondly, as opposition groups gained experience, the techniques they used became increasingly sophisticated. Among the opposition were university scientists and Forestry Department officials who risked their jobs by speaking out. Student organisations and other NGOs joined in, along with several prominent political figures, among them former Prime Minister Kukrit Pramoj. Newspapers challenged EGAT's information. Eventually these disparate groups were able to forge an alliance between local resource defence and a broader environmentalism, and form an effective common front against the dam. The discovery of damaging scientific information and the co-ordinated use of newspapers, letters, and lobbying eventually proved successful.

During the 1980s several other important environmental disputes occurred. From the mid-1980s, a wave of conflicts arose over access to land in the forest fringe. Peasant colonies fought against plantation companies for control of land that the government defined as 'forest' long after the trees had disappeared. In November 1988, Thailand incurred flooding and mudslides that killed over 350 people and caused more than US\$120 million in damage. The reason for the severity of the flooding was found to be that the forest cover in Thailand had been so reduced that many areas were denuded, allowing water to rapidly run off hillsides and into narrow valleys. After touring the affected areas, Prime Minister Chatichai ordered all logging in Thailand stopped. Unfortunately, the ban has not been particularly successful. Government efforts to enforce the ban have been characterised as 'patchy' (Baker, 1995).

From the early 1990s, another range of disputes has arisen over pollution and waste disposal—as industrialisation accelerates, factory sites have spread out from the Bangkok region, generating bulky and dangerous wastes, or polluting the local environment (Phongpaichit and Baker, 1997).

The rise in environmental awareness in Thailand is also due to the role played by the King and Queen of Thailand and other members of the Royal family. The Royal couple is held in high esteem by Thais and is deeply admired for their efforts to improve the well-being of their subjects. Both the King and the Queen are actively involved in supporting a number of environmental projects (Baker, 1995). Environmental protection projects are often initiated and dedicated to the King or Queen, particularly on their

birthdays or other anniversaries. To celebrate the 50th year of the King as Monarch in 1996, the Forestry Department began a three-year reforestation program to be implemented jointly by the public and private sectors.

In summary, the environmental movement has become a significant force in recent years, and is now characterised by a broad-based coalition that incorporates a wide range of social, economic and political actors. As such, environmentalism in Thailand now represents an inclusive oppositional force to challenge the centralised decision-making of the political elite (Hirsch, 1997). The traditional components of the bureaucratic systems must now take account of the claims made by extra-bureaucratic forces, a situation that was not the case up until the early 1990s (Baker, 1995).

## **6.5 CASE STUDIES**

### **6.5.1 Introduction**

The preceding sections have introduced the social 'forces' that are currently active in driving Thai Government policies on natural resource development, and those which are involved in environmental activism. These 'forces' represent the key host country stakeholder groups that have an interest in petroleum industry activities in Thailand. In Chapter 2, the concepts of stakeholder influence and legitimacy claims were introduced within the broader framework of company strategic management practices. In the following sections, the discussion of stakeholder influences is developed in a local social and environmental context through two Thai case studies of interactions between stakeholders, petroleum companies and their regulators.

The first case study centres on the issue of marine ecosystem contamination associated with discharge of mercury in produced water from gasfields in the Gulf of Thailand. The second case study probes ecological conservation, environmental risk and community rights concerns associated with the installation of the *Yadana* gas sales pipeline in Thailand. The case studies serve to demonstrate the influence of stakeholders and sensitivities in petroleum industry-regulator relations, as well as to expose some of the existing flaws in the government administration of Thailand's environmental law framework.

### **6.5.2 Mercury Discharges to the Gulf of Thailand**

Coastal and marine resources are particularly important to the largely maritime nations of South-East Asia, where fish is a staple of their populations' diets. The ecological pressures of coastal development, together with intensive commercial exploitation of the Gulf of Thailand fisheries are having adverse impacts upon the local fish populations. Under these conditions, industrial operations in and around the Gulf of Thailand have come under increased scrutiny as the Thai government attempts to

maintain a balance between the competing needs of economic prosperity and environmental protection (OEPP, 1997; McDaniel *et al.*, 1998).

Discharge of dissolved mercury and other hazardous waste materials into the Gulf of Thailand is a particular concern<sup>11</sup>. Concentration of mercury through the food chain has been reported in the Gulf of Thailand and along the course of the Chao Phraya River, especially in shellfish and fish-eating birds (Tapvong, 1995). The presence of mercury evokes a high level of public concern, related to memory of the cases of mercury poisoning reported from Minamata, Japan, where many people died or suffered adverse neurological health effects (McDaniel, *et al.*, 1998). Amongst other sources, mercury is released to the marine environment from industry, including the petroleum production facilities operating in the Gulf of Thailand. Mercury is a naturally occurring element in the geologic formations underlying the Gulf, and is associated with natural gas and condensate that are extracted from some of its hydrocarbon reservoirs.

The controversy over mercury discharges from natural gas production platforms in the Gulf of Thailand has been most publicly<sup>12</sup> associated with Unocal Thailand Ltd, a subsidiary of the US-based multinational, the Unocal Corporation.

In 1962, as the Union Oil Company of California, it was the first petroleum company to be awarded exploration rights<sup>13</sup> by the Thai government. In 1968, the Thai government opened the Gulf of Thailand to exploration, and the company was awarded the first offshore concessions. Ensuing exploration in these concessions resulted in the 1973 discovery of Thailand's first commercial natural gas field, and in 1981 Unocal Thailand commenced commercial gas production. Further exploration and development of other nearby gasfields in the Gulf was subsequently undertaken by the company, and eight

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<sup>11</sup> Factories producing a wide variety of hazardous chemicals are supposed to have water treatment facilities, but often these are not operated and pollutants are released directly into waterways. Up until 1994, Bangkok, a city with a permanent population of over 8 million people, did not have a water treatment system. The city discharged over 1.4 million cubic metres per day of untreated wastewater into nearby rivers and canals (Wedel, 1995), including the Chao Phraya River that discharges into the Gulf of Thailand.

<sup>12</sup> Mercury has also been found in gas produced from nearby fields developed by Total Exploration and Production Thailand, and now operated by PTT Exploration and Production Public Co. Ltd (PTTEP).

<sup>13</sup> Unocal's first concession was awarded on the Khorat Plateau, onshore north-east Thailand.



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additional fields, with over 70 platforms, have since been brought into production<sup>14</sup> (refer to Figure 6-1). The company proudly states that its “*investments in the Kingdom [of Thailand] have been greater than any other US company*” (Unocal Thailand, 1997c).

Unocal Thailand first discovered the presence of mercury as a trace contaminant in natural gas from its *Platong* field in 1985—four years after it commenced gas production in the Gulf (Unocal Thailand, 1997b). In addition to the elemental form found in natural gas, trace amounts were found in condensate, tank sludge and produced formation water (Unocal Thailand, 1997b). The mercury occurrence was treated as an operational issue, which the company addressed by undertaking ecological studies, and then developing and implementing mercury separation and handling procedures.

These activities were undertaken in consultation with, and with the approval of Department of Mineral Resources (DMR)<sup>15</sup>. According to Unocal Thailand (1997b), by volume, a total 96% of the mercury is removed by separation and treatment processes on the offshore production facilities (65%)<sup>16</sup>, and at condensate (28%) and gas (3%) purchasers’ processing facilities. The remaining 4% is contained in produced formation water, “*which (after initial treatment) is released into the Gulf from eight gas production platforms at the end of the gas production process*”.

On 26 December 1995, some 10 years after Unocal Thailand first discovered the mercury contaminant, an article was published on the front page of a Bangkok newspaper referring to rising mercury levels in the Gulf of Thailand. The article cited a seminar presentation by a Chulalongkorn University<sup>17</sup> professor, which reported

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<sup>14</sup> In 1998, producing fields comprised the *Baanpot* field (1983), the *Platong* and *Satun* fields (1985), the *Kaphong* field (1989), the *Funan* and *Surat* fields (1992), the *Jakrawan* field (1993), and the *Gomin* field (1996). Other fields are currently under development (the *Pailin* field), or scheduled for development (*Pakarang*, *Trat* and *Pladang* fields). Recent increases in gas output have been largely due to Unocal Thailand’s multi-million US dollar drilling programme in six fields. The programme proved the commercial viability of the *Pladang* prospect, delineated the *Trat* field, and extended the *Satun*, *Platong*, and *Baanpot* fields to boost JV reserves by more than 300 BCF. The Unocal Thailand joint venture reportedly aims to continue to increase production from nine fields in the southern Gulf as part of a US\$1.38 billion three-year development programme (Koen and Ahmad, 1997).

<sup>15</sup> The Department of Mineral Resources (DMR) acts as the ‘competent authority’ on behalf of the Minister for Industry and administers the 1971 *Petroleum Act*. The Mineral Fuels Division of the DMR is specifically responsible for facilitating granting of petroleum concessions; enforcement of the *Petroleum Act* and its regulations; and enforcement of safety and environmental standards.

<sup>16</sup> Mercury-contaminated sludge is reinjected into decommissioned gas wells, with the approval of the DMR.

<sup>17</sup> Chulalongkorn University is an internationally recognised and respected university, based in Bangkok, Thailand.

detection of elevated mercury levels in fish collected near the offshore oil and gas production platforms in the Gulf. The newspaper article suggested that gas producers in the Gulf, including Unocal Thailand, had contaminated seawater, sediment, and fish around the platforms with mercury released in untreated produced water (McDaniel *et al.*, 1998).

The privately-owned print media had abruptly put Unocal Thailand on notice. The company had established itself as a successful business and formed a good working relationship with its primary government regulator, the DMR, but it could not therefore assume that it had won the trust and respect of the community—its legitimacy was being challenged.

For the Unocal Corporation, the potential implications of this challenge for its business, both locally and regionally<sup>18</sup>, were serious. Its subsidiary had established and carefully nurtured a competitive advantage in Thailand by being the first foreign gas producer and the largest US investor. A good reputation and working relationship with the government would potentially assist in securing high quality exploration acreage in future bidding rounds, and securing future gas sales agreements; as well as expansion into emerging avenues such as private sector power generation, by other subsidiaries of the Unocal Corporation.

Following the media story on 26 December 1995, the company received a “*barrage of questions*”, for which it was, by its own admission, unprepared to respond, even though “*the company felt that the news report had misrepresented Unocal’s operations*” (McDaniel, *et al.*, 1998). Not only was the company unprepared to respond adequately to this criticism, it was also contractually prevented from doing so. Under the terms of its operating agreement with the Thai government, Unocal Thailand had agreed to rely on the DMR, as a trusted intermediary, to handle external communications for the company concerning sensitive issues. This was accepted customary practice for oil and gas companies in Thailand at the time.

Unocal Thailand had in fact been monitoring mercury levels around its platforms for several years, and had regularly reported its results to the DMR. A series of ecological studies undertaken to identify the potential impacts of mercury on water and fish in the Gulf had shown that mercury levels around the platforms were within the range of

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<sup>18</sup> Regionally, Unocal’s Thailand operations base had been used to launch the company into other ventures in neighbouring countries like, Myanmar, Pakistan, Vietnam, Cambodia, and China. As stated in Unocal Corporation’s 1995 Annual Report, “*Unocal’s low cost structure, flexible team-based organisation, and strong operating history overseas uniquely position us to benefit from the rapidly growing natural gas demand in Southeast and Central Asia. We are focusing our investment plan on integrated energy projects. This involves connecting growing energy markets to known resources and optimising risks and returns through deal structuring, financial innovation and strong alliances*” (Unocal Corporation, 1995).

naturally occurring levels worldwide, and that it was safe to consume fish caught around the platform. Although this information had been relayed to the DMR, the results of the studies had never been made public. This government policy was consistent with the pre-1997<sup>19</sup> Thailand, in which information was often only released to the public on a 'need to know' basis.

At the outset of the public controversy, Unocal Thailand initially relied upon its established mode of communication, and allowed the DMR to represent the company's views to the media. Continuing news coverage in the month following the original story illustrated the weakness inherent in the company's initial strategy. Reporters emphasised the existing information gap, often stating that Unocal Thailand refused to make the facts known to the public. Although the company was following standard protocol by communicating through the DMR, the concerns about mercury were compounded by Unocal Thailand's inability to communicate with the public, a practice that suggested that the company had something to hide. To the free press that has evolved in Thailand, the company's communication via a government intermediary conflicted with the media's demands for transparency, openness and direct interaction (McDaniel, *et al.*, 1998).

Unocal Thailand did make some attempts to contribute to the public messages delivered by the DMR, but these appear to have exacerbated the conflict rather than eased it. The company attempted to defend its levels of mercury discharge by favourably comparing them with naturally occurring levels resulting from river discharge, and discharges by other Thai industry<sup>20</sup>. In the presence of Thai government agencies, Unocal Thailand also criticised the Chulalongkorn University professor, by calling into question the analytical credibility of his data. (This action was in breach of a customary Thai taboo on publicly criticising respected academics and causing loss of 'face').

In response, a report in *The Nation* newspaper on 13 January 1996, stated that the abovementioned professor could not "*reveal the data from the most recent fish surveys because it is the property of Unocal, who hired him to carry out the studies*" (Fahn, 1996a). Another press story published on 24 January 1996 quoted a regional

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<sup>19</sup> A new national Constitution was enacted in 1997 that, in theory, improves the standing of 'community right to know' (Office of the Council of State, 1997).

<sup>20</sup> Mercury is also known to be contributed from other point sources on the coast of the Gulf of Thailand. According to Fahn (1997c), mercury has been detected in fish, sediment and water samples near the industrial port and industrial estate of Map Ta Phut on the Eastern Seaboard. "*A petrochemical industry expert who has worked in Map Ta Phut is convinced that the problem largely stems from there. 'The amount of mercury being discharged from natural gas production platforms is quite small compared to that coming out of Map Ta Phut ... But the problem on the Eastern Seaboard hasn't been exposed for political reasons'*" (Fahn, 1997c).

representative of the United Nations Environment Programme as stating, “*We need to know what is going on. This is not a case of finding fault, but of simply getting the facts.*” The same article reported that “*officials from the Fisheries Department, the Department of Mineral Resources and Unocal have so far refused to provide detailed information on mercury levels in fish found in the Gulf*” (Fahn, 1996b). Critical newspaper reports continued into mid 1996 (e.g. *Bangkok Post*, 1996).

As observed by Hinton (1998), industry and government typically approach an environmental issue by being very analytical, business-like, logical, and scientific. On the other hand, the public, generally, initially approaches the same environmental issue with a more human interest, and non-technical perspective of wanting to know how the issue affects their everyday lives. As a consequence, from the outset the two groups view the same issue or situation very differently. This difference in perception can lead to communication misunderstandings. In response, it is not uncommon for industry and government to take an inappropriate (e.g. stonewall) approach to communication with the public, if they perceive the public as being “*irritatingly irrational and to have been manipulated by socialistic environmental groups or the liberal media*” (Hinton, 1998). The outcome of this ‘stonewall’ approach is the exclusion of stakeholders, which can lead to anger, fear and outrage (Sandman, 1993).

Accordingly to a Unocal Thailand interviewee, the company was initially subject to pressure from the DMR to “*keep quiet*” while the public was calling for openness. However, once senior managers recognised the level of public concern, a senior Unocal representative spoke to a senior DMR manager to get approval to be open and in direct communication with the public. The company then set about revising its communication strategy. It chose to adopt the principles of risk communication, because it perceived that many risk communication ‘outrage factors’ were driving interest and public concern about mercury releases into the Gulf of Thailand. Senior corporate managers apparently understood that an effective communication exchange would be possible only by working within—rather than against—the cultural and social expectations of the host country.

According to McDaniel, *et al.* (1998), many Unocal representatives, including members of upper management, participated in Unocal Corporation’s Risk Communication training program in March 1996. Training sessions also included Thai government and agency representatives who were actively involved in Unocal Thailand’s external communications. The company’s revised strategy included several components that drew upon the company’s understanding of Thai culture and local concerns. Personalism is very important in Thai culture. Many studies have shown the importance of patron-client ties and more horizontally-based ties (Baker, 1995; Hewison, 1997b). Given this characteristic of Thai society, strategies that involve personal contact are favoured over more indirect or impersonal ones. The strategy that Unocal employed included: (i) the development of two-way communication (with the permission of the

DMR); (ii) the funding of additional health and ecological studies in the Gulf of Thailand with input from local stakeholders; and (iii) the identification and inclusion of key stakeholders in the process of planning further studies and impact mitigation.

As a step towards reconciliation, the company also arranged a meeting with the Chulalongkorn University professor who had reported mercury levels in the Gulf. According to McDaniel, *et al.* (1998), the goals of this meeting were to ensure that the professor had the latest information about what Unocal Thailand was doing to reduce mercury discharges into the Gulf, and to ensure that he was included in the company's discussions of future actions.

*“Unocal also agreed to make public all of the company's previous data concerning mercury. The company provided a reporter from The Nation with access to all the previous health and ecological studies and went through the studies with him, answering any questions he might have. The President of Unocal Thailand made himself available to reporters, bringing along experts from his environmental staff who are Thai nationals. Unocal also began holding regular press briefings in both English and Thai. A number of reporters were invited to take a press tour of the platforms”* (McDaniel, *et al.*, 1998).

The process of making public the results of the previous studies reportedly led to a company decision to fund a series of new mercury studies. In scoping out the new mercury studies, Unocal Thailand identified key audiences who would be interested in the project, including company employees, especially those who fish<sup>21</sup>; Thai government and agency representatives, including members of the DMR, the Department of Fisheries, and the Pollution Control Department (PCD); Thai fishermen, environmentalists, consumers, and other oil and gas producers. An oversight committee was established to involve key stakeholders in the planning and execution of the mercury studies. The panel included the Chulalongkorn University professor.

*“The participation of the key audiences was a necessary aspect of allowing all parties to save face. No one was left out for having an ‘unpopular’ point of view”* (McDaniel, *et al.*, 1998).

The initial results of the study were publicly presented at an international toxicology conference in Bangkok in December 1996. Subsequent study reports have since been publicly released (1997-98).

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<sup>21</sup> A particular focus of the new study was fish consumption patterns of Unocal Thailand's employees and their families. This issue was of concern because many employees liked to catch fish during their fortnight-long shifts on the offshore platforms, and then would freeze their catch to take home, thus potentially extending the health risk from mercury to their families.

Public relations literature published by the Corporate Communications Department of Unocal Thailand in 1997 (Unocal Thailand, 1997a, 1997b) demonstrates the company's heightened sensitivity about its legitimacy and 'licence to operate'. Statements in a published leaflet dedicated to the mercury issue (Unocal Thailand, 1997b) make appeals to the readers to recognise and accept:

- i) Credibility accorded by third party experts: *"It has been confirmed by third-party environmental experts that fish in the Gulf—including those around the company's gas platforms—are safe for consumption and do not pose health hazards, as the mercury content in a vast majority of the fish tissues has been found to be well below the United Nations Food and Agriculture Organisation (FAO) standard. Similarly, seawater sampling indicates that mercury levels in the Gulf waters around the platforms are normal and consistent with worldwide levels"*.
- ii) Assurances that the company is managing the source of the problem: *"Only the 4% portion found in the [produced formation] water has yet to be completely removed. In other words, 96% of the trace mercury has been successfully dealt with by either Unocal or the buyers of the gas and condensate"*.
- iii) Assurances that the company has regulatory approval for its actions: *"In the absence of an industrial waste treatment plant in Thailand, Unocal found the reinjection of the mercury-contaminated sludge into empty gas wells (a practice in other areas of the world) practical and environmentally safe for the Gulf of Thailand. The project was approved by the Department of Mineral Resources (DMR) and successfully undertaken in mid-1995"*.
- iv) Reassurance offered by using the latest technological solutions: *"Unocal has found and applied water treatment technologies which can remove all but minor trace amounts of the mercury. As yet, there is no technology available that will remove 100% of the element. ... Reinjection is not currently available at all locations, so state-of-the-art water treatment is still required. Unocal will continue to use both methods as it looks for even better technologies for mercury removal. Based on all technologies available to date, the Pailin gas field, which is expected to come on stream in late 1998, will feature the most complete water treatment technology at any offshore gas field in Thailand"*.
- v) Research and development expenditure: *"Unocal spent US\$1.3 million on water treatment projects in 1996 and plans to spend US\$4.5 - 6 million to complete the installation of water treatment systems in 1997; a breakthrough year after long years of research by the company"*.
- vi) Assurances of co-operation with regulators, and environmentally responsible behaviour: *"Unocal will work closely with public agencies and will remain a*

*responsible gas producer for the Kingdom of Thailand. Its commitment is to reduce both the volume of produced formation water subject to ocean discharge and to minimise even further the trace amounts of mercury remaining”.*

The company literature also lists the actions taken by Unocal Thailand between 1990 and 1996 to investigate and address the mercury disposal problem. It makes particular reference to the ecological studies that it commissioned several “*third-party international experts*” to conduct, while being

*“supervised by authorities on the subject from both the public and the private sectors, as well as top academicians, to ensure accuracy and objectivity of results and reports”* (Unocal Thailand, 1997b).

In addition to the issue-specific initiatives outlined above, the company worked to improve its overall environmental management system. Amongst the initiatives taken in early 1996, was the promotion of its Environmental Care System, which incorporates five elements: Program Administration; Environmental Hazard and Issue Identification; Environmental Monitoring; Environmental Performance Assessment; and Community Awareness.

In February 1997, Unocal Corporation formally launched its risk communication policy, which established a company-wide program of public outreach and open, two-way communication concerning operations, health, environment and safety issues (Unocal Corporation, 1997).

*“The policy reflects Unocal’s awareness that the company’s continuing success and profitability depend upon maintaining a good relationship with the communities in which we operate worldwide. Specifically, our risk communication policy seeks to:*

- *Provide our neighbours and the community with reasonable access to information about operations, health, environment and safety issues.*
- *Cultivate trust and credibility in our relationship with the public.*
- *Support proactive involvement in the communities in which we operate, including anticipating potential problems, as well as responding to incidents should they occur.”*

According to Unocal Thailand (1998), implementation of the policy requires each business unit to establish written risk communication plans designed to ensure that information is provided to external parties. The plans are to address such topics as site history, past environmental incidents, areas of potential vulnerability, key audiences and key concerns.

The company also enhanced its existing International Safety Rating System and its Environmental Care System so that the linked systems fulfilled the certification requirements for the ISO 14001 standard for environmental management systems. This action appears to have assisted the company to address its external communications and community awareness deficiencies. The 'Community Awareness' element includes keeping government agencies, officials and local citizens informed of the company's plans, activities and problems. This element also requires the company to be committed to participation in community betterment activities. When the company audited this element against performance criteria of program establishment, health and environmental risk communication training, and information disclosure/communication channels, the element scored 24.2% for the May 1996 corporate audit, but had improved markedly to 85.2% for the 1997 year end audit (against a target of 70%) (Unocal Thailand, 1998).

In August 1997, Unocal Thailand received third party ISO 14001 certification for its environmental management system, an achievement which was positively reported (*Bangkok Post*, 1997a) by the same Bangkok media that had earlier heavily criticised the company. Over the term of some 18 months, the company had managed to achieve credibility with the press and the public (McDaniel *et al.*, 1998). A (non-Unocal) industry source interviewed by this researcher in May 1998, perceived the mercury issue to have been "*not so much a public issue as a press issue, which since seems to have gone away*". This observation suggests that the media had been satisfied that the company had taken notice of its protests and had addressed them adequately.

Analysis of this case study in the context of stakeholder relations, organisational learning and corporate 'greening' is presented in Sections 6.6 and 6.7, along with a comparative analysis of the following second case study.

### 6.5.3 Yadana Natural Gas Sales Pipeline

Another environmental controversy involving the petroleum industry occurred in Thailand during the period 1995-98. The *Yadana* gas sales pipeline controversy in Thailand centred on the project proponents, the Petroleum Authority of Thailand (PTT) and its recently formed subsidiary, PTT Gas<sup>22</sup>. The other key stakeholders and social 'forces' in this case study are the Electricity Generating Authority of Thailand's (EGAT), current and former Thai prime ministers (Chavalit, Chuan, and Anand), academics, national and grass roots NGOs, peasants, and the print media.

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<sup>22</sup> The role of PTT Gas is to strategically increase the national capability to procure domestic and overseas natural gas (particularly in the Asia region), in addition to a productive marketing scheme.



Widespread and effective opposition to new hydro-electric projects<sup>23</sup>, and health concerns about lignite-fired power stations<sup>24</sup>, have forced the Thai government to look to other sources of electricity-generation—natural gas being an obvious choice given the presence of this resource in Thailand and in its neighbouring countries. Improved relations with its neighbours in the last decade or so, have opened opportunities for Thailand (and its private industry partners) to exploit natural gas reserves in Myanmar, Vietnam and Cambodia.

In 1993, PTT commenced negotiations with the Myanmar government to purchase gas from the *Yadana* gas field in the Andaman Sea. In February 1995, PTT signed a 30-year gas sales contract with the Myanmar government to buy 525 million cubic feet of natural gas per day (MMCFD). The gas is to be used in electricity generation to meet Thailand's projected future energy demands. The *Yadana* pipeline project developer is a Myanmar-based corporation, the Moattama Gas Transportation Company (MGTC), of which the shareholders are Total Myanmar Exploration and Production (TMEP) (the operator) (31.24%), Unocal Myanmar Offshore Co. Ltd (28.26%), PTT Exploration and Production International<sup>25</sup> (25.5%), and the Myanmar state-owned petroleum company, Myanma Oil and Gas Enterprise (15%).

The gas sales pipeline scheme involves transporting 650 MMCFD of gas from the *Yadana* field via a 346 km long subsea pipeline that reaches shore near the fishing village of Daminseik (in Myanmar). From there, 525 MMCFD of gas is transported in the 63 km long onshore pipeline passing through the tropical jungle and rough terrain of the Tenasserim district of Myanmar (an area long contested by ethnic Mon and Karen minorities) to the Thai border (refer to Figure 6-1). From the Thai border, the *Yadana* gas sales pipeline is the responsibility of the PTT. The Thai portion of the pipeline extends 260 km from near the settlement of Ban I-Tong in Kanchanaburi Province, to Ratchaburi (south-west of Bangkok), where the gas will be used to fuel EGAT's

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<sup>23</sup> Hirsch (1995) suggests that the strength of opposition to the Pak Mun Dam is an indication of the political limits to continued dam construction within Thailand. Anti-dam protests began in April 1989 (the month that EGAT proposed the project), and continued through to mid-1994 when the construction work was completed.

<sup>24</sup> In October 1992, several hundred villagers in Mae Moh, a small village in northern Thailand, had to be hospitalised after inhaling toxic fumes emitted from a lignite-fired power plant near their homes. EGAT blamed the emissions on excessive sulphur dioxide. The Minister of Science, Technology and Environment promised that EGAT would pay compensation and would install pollution control measures under the supervision of his ministry. Despite these promises, several hundred more villagers, as well as thousands of livestock, fell sick in subsequent weeks, when the plant continued to operate at full power despite assurances that it would not do so (Baker, 1995).

<sup>25</sup> PTT Exploration and Production International is a subsidiary of PTT Exploration and Production Public Co. (PTTEP), which in turn is a publicly listed subsidiary of PTT.

Ratchaburi power station (as part of Thailand's Western Seaboard Development Plan) (PTT, 1997b). The official target completion date for commencement of gas supply to the power station was 1 July 1998.

Thai supporters of the project claimed that the gas from the *Yadana* (and *Yetagun*) fields is essential for industrial development in Kanchanaburi (Gilleland and Hopson, 1998). Opponents demanded the project to be scrapped altogether or the pipeline route be diverted from forest areas. They claimed, among other things, that the pipeline installation would cause irreparable damage to the ecology and the habitat of rare wildlife in forest areas along its route, that the lives of residents along the pipeline route will be endangered by possible rupture or sabotage, and that the money from the sale of gas will assist ongoing repression of ethnic and democratic opposition in Myanmar by the military junta.

A chronological summary of the main events that took place, from the time of the contract signing until the climax of the controversy in early 1998, is presented in Table 6-2.

**Table 6-2 Chronology of the PTT Yadana Gas Pipeline Controversy**

Date	Activity
July 1992	French petroleum company, Total, signed a Production Sharing Contract with Myanmar's national oil company, Myanma Oil and Gas Enterprise (MOGE), to appraise, develop and produce gas in the <i>Yadana</i> offshore field, located in the Gulf of Martaban, south-west of Yangon (Rangoon).
February 1993	Total began negotiations with the Petroleum Authority of Thailand (PTT) to sell gas to fire Thai power stations.
October 5, 1993	The Chuan-led Cabinet approved Electricity Generating Authority of Thailand (EGAT)'s electricity-generating development plan and urged the PTT to sign the <i>Yadana</i> gas-sales agreement with the Myanmar government to supply EGAT's power plant in Ratchaburi.
September 9, 1994	Thai Industry Minister Sanan Kachornprasart signed an MOU with Myanmar's Energy Minister Khin Maung Thein in Yangon.
February 2, 1995	Thai Prime Minister (PM) Chuan Leekpai signed the Gas Sales Agreement with Myanmar's Energy Minister in Bangkok. The Thai Cabinet approved the PTT's signing of a gas-sales contract with the Myanmar-based production consortium, Moattama Gas Transportation.
March 1995	Thai environmental interest groups called for the pipeline proponents to release details of likely environmental and social impacts of the project.
June 1995	PTT engaged Team Consulting Engineers Co Ltd to conduct the Environmental Impact Assessment (EIA).
July 1995	Chuan government defeated in elections by Chart Thai coalition, led by 'provincial politician', Banharn Silpa-archa.

Table 6-2 Chronology of the PTT Yadana Gas Pipeline Controversy

Date	Activity
May 7, 1996	The Thai Cabinet approved the project in principle and gave permission to PTT to build the pipeline in the Huay Khayeng forest reserve, 1A (first class) watershed area. Cabinet approval was conditional upon endorsement of the National Environmental Board (NEB). Conservation groups and human-rights NGOs protested against the Cabinet's resolution.
May 21, 1996	PTT submitted the EIA report to the Office for Environmental Policy and Planning (OEPP)'s expert committee on infrastructure projects for review and recommendation.
May 26, 1996	The OEPP's infrastructure expert committee rejected the EIA, and ordered the PTT to conduct further studies on the project's impact on wildlife and the forest, and hold a public hearing.
September, 1996	Work on the Thai section of the pipeline was delayed pending a technical hearing scheduled to take place in November 1996 (but later delayed until February 1997).
November 1996	PM Barnharn's allegedly corrupt government was defeated in a general election. The New Aspiration Party came to power, led by 'mandarin', and former General, Chavalit Yongchaiyudh.
February 10-12, 1997	PTT held a technical hearing in Kanchanaburi, but failed to assuage villagers' anxiety about earthquakes and sabotage, and conservation groups' concerns about impacts on wildlife and habitat.
February 26, 1997	PTT submitted the revised EIA to the OEPP's expert committee. The EIA was again rejected, with insufficient wildlife data cited as the main reason.
March 5, 1997	PTT submitted the second revision of the EIA to the OEPP's expert committee.
March 11, 1997	The OEPP expert committee finally recommended it for approval by the NEB, on the condition that further studies were carried out while the pipeline was being built. Environmentalists called upon the PTT to re-route the pipeline outside the forest.
March 24, 1997	The NEB officially approved the EIA, and set up a provincial committee to monitor the environmental impacts of the project.
April 10, 1997	PTT workers were accused of collaborating with kamnan and village chiefs in the Thong Pha Phum district to embezzle compensation money earmarked for payment to landowners.
Late March 1997	Construction work began on the Thai component of the pipeline.
March 30, 1997	Environmental groups in Kanchanaburi mounted a public campaign to protest against the pipeline.
April 13, 1997	PTT public relations director, Dr Songkiert Tansamrit publicly responded to public criticisms and put his company's side of the story in the <i>Bangkok Post</i> .
May 14, 1997	Kanchanaburi Conservation Group withdrew from a sub-committee established to monitor the impact of the pipeline on the environment. The Group accused the PTT of lying and of failing to provide clear and adequate information.

Table 6-2 Chronology of the PTT Yadana Gas Pipeline Controversy

Date	Activity
May 30, 1997	Media reported that Thai Industry Minister Korn Dabbaransi would press the PTT to readjust its public relations strategy in an effort to curb growing opposition to the <i>Yadana</i> gas pipeline project.
Early June, 1997	The Chairman of the Tasco Mannesman joint venture, one of the companies contracted by PTT to lay the Ban I Tong to Ratchaburi pipeline, wrote a letter to Queen Sirikit, suggesting that PTT could use district roads 3273 and 323 as alternatives to the chosen route that would partly cut through forest reserves in Kanchanaburi. PTT engineer responded that the alternative route had already been studied and rejected because of the need for additional site work that would <i>"more seriously damage the environment"</i> . PTT officials also suggested that the route alternative would be 70 km longer than the proposed route, so the contractor would stand to make more money from a route change.
June 8, 1997	The NGO, Committee for Natural and Environmental Protection of 16 Institutes, issued a statement condemning the PTT's continued construction of a gas pipeline. The NGO stated that despite the fact that the project was certain to affect local communities and the environment, <i>"the PTT has distorted facts regarding the environment to thwart opposition. ... The fact that the project will result in a loss of an area in the tropical forest with invaluable bio-diversities has been overlooked, showing the PTT's lack of vision because nature and the environment are without boundaries"</i> .
June 11, 1997	PM Chavalit Yongchaiyudh met with opponents and supporters of the Thai section of the <i>Yadana</i> pipeline in a bid to avert work delays that would potentially cost Thailand 41 million baht per day. The meeting was initiated partly in response to the Royal Household's advice to the Prime Minister <i>"to consider"</i> the project carefully in line with the petition lodged in March 1997 by Tiwiporn Sriworakul of Kanchanaburi, who said the project could destroy the forests.
June 27, 1997	Villagers from Dan Makham Tia District, Kanchanaburi, rallied in front of Parliament and attempted to file a petition with PM Chavalit calling on the PTT to divert the pipeline away from their home town.
July 19, 1997	The <i>Bangkok Post</i> reported that four environmental organisations (Wildlife Fund of Thailand, Friends of the Asian Elephant Foundation, Seub Nakhasathein, and Green World Foundations) were proposing to sue the PTT for allegedly damaging forest land during building of the pipeline, and building the pipeline through a protected area without permission from the Royal Forestry Department. The organisations said that the NEB and the Cabinet should not have approved the project and signed the deal before there had been an EIA report giving it approval. They claimed that this breached environmental law.
August 5, 1997	PTT representatives failed to appear at a scheduled meeting with the Lawyers Council of Thailand, where they were to discuss provision of information on contractual arrangements, environmental risks of the project, and compensation terms. (PTT officials were later reported as saying that the company was not answerable to the law society, although they would welcome its members to visit the PTT to obtain the information).

Table 6-2 Chronology of the PTT Yadana Gas Pipeline Controversy

Date	Activity
August 28, 1997	The Vice-President and Secretary of the Kanchanaburi Chamber of Commerce issued an open letter urging opponents of the pipeline project to stop their "senseless" protests: "If we had to sacrifice 100 to 200 rai of land for pipeline laying and we can get the energy needed for building up our nation, then that should be acceptable".
Early September, 1997	PTT filed a complaint against a local business man from Thong Pha Phum district for obstructing its project and violating the <i>Petroleum Authority of Thailand Act</i> .
October 8, 1997	PTT reportedly agreed to temporarily halt work on the pipeline while talks were held with the opposing groups to settle outstanding issues. The talks were to be mediated by the Institute for Dispute Resolution from Khon Kaen University. (Talks broke down in early November when the Industry Minister did not give his blessing to the project).
October 21, 1997	The Chavalit-led Cabinet ordered the Royal Forestry Department to revoke park status for 105 rai of the Sai Yoke National Park through which the pipeline would be built. Conservationists claimed that the cabinet order violated articles 46 and 56 of the Thai Constitution, that guarantees the right of local people to participate with the state in conserving and using natural resources.
June 23, 1997	PM Chavalit forced to resign.
November 9, 1997	Chuan-led coalition government was elected to parliament.
Early December, 1997	PM's Office Minister Supatra Masdit visited the proposed construction site in the Sai Yok National Park and urged conservation groups to return to the negotiation table with PTT to explore possibilities of re-routing the pipeline away from the sensitive "lush forest" portion. The Minister promised to talk to PTT, to request a halt to the construction work while re-routing options were discussed, but was later accused by protesters of failing to honour this promise.
December 21, 1997	Environmentalists and students began a sit-in protest in the Huay Khayeng forest along the pipeline's proposed route, again calling on the government to re-route the pipeline outside the forest.
December 31, 1997	Chiang Mai University lecturer Nithi Iewsriwong and NGOs in northern Thailand issued a statement calling on the people to stop using all PTT, Unocal and Total products and services and to pressure the three companies to disclose information about environmental and economic impacts of the <i>Yadana</i> pipeline project.
January 2, 1998	PTT extended an invitation to NGOs and people opposing the pipeline project to view the project, "to prove that the PTT had tried every way to minimise the negative impact of the project on wildlife and trees in 45 rai of forests." PTT undertook to decrease the width of the construction site from 20 m to 12 m in the 6 km stretch of forest.

Table 6-2 Chronology of the PTT Yadana Gas Pipeline Controversy

Date	Activity
January 6, 1998	Four environmental NGOs authorised the Lawyers' Council of Thailand to file a lawsuit against the PTT, Prime Minister Chuan Leekpai and ex-Prime Minister Chavalit Yongchaiyudh. PTT and PM Chuan were accused of negligence for failure to reveal information on the project to the public, thus violating the Thai Constitution which recognises citizen's right to know about state plans and projects which could be harmful to the environment and society as a whole. General Chavalit was accused of approving the PTT's plan to lay the pipeline through a first-class watershed in October 1997. His approval allegedly violated an earlier cabinet resolution of 9 July 1997 that prohibited any use of first-class watershed areas. The legal team also proposed to sue MOSTE for failure to enforce the ECNEQ Act, and for obstructing attempts by local people and NGOs to take part in the project's EIA study.
January 8, 1998	Disturbed by construction work, an elephant herd living in the Huay Khayeng forest encroached on a villager's farm, and a baby elephant fell into a trap dug by villagers.
January 9-12, 1998	PM Chuan temporarily suspended the pipeline construction and set up a legal committee to study the project's contract and determine whether penalties would actually be incurred by delaying the project completion.
January 22, 1998	Village headmen in Kanchanaburi mobilised more than 15,000 villagers to support the project in front of the Provincial Hall, as a countermeasure to the on-going forest sit-in protest by pipeline opponents. Organising groups included the Association of Kamnan and Village Chiefs, the local Chamber of Commerce, the Federation of Thai Industries, the local press club and farmers' groups.
January 23, 1998	The Association of Kamnan and Village Chiefs threatened to remove conservationists from their protest site in the forest on the pipeline route.
January 25, 1998	PTT reportedly filed a complaint against a core leader of the Kanchanaburi Conservation Group, accusing her of preventing workers from laying the pipeline.
Early February 1998	A group of prominent academics urged PM Chuan to set up a public hearing forum on the <i>Yadana</i> gas pipeline project. The objective of the forum would be to discuss the wider scope of the project including national policies on energy, the environment and foreign affairs, with an aim of avoiding similar incidents in the future.
February 12, 1998	PM Chuan established a 'National Committee' chaired by former PM Anand Panyarachun, comprising " <i>several well-respected members of society</i> " to review the project, identify disputes between supporters and opponents of the project, and make project-specific recommendations to the government, as well as recommendations for creating a social standard in other development projects in order to prevent conflicts.

Table 6-2 Chronology of the PTT Yadana Gas Pipeline Controversy

Date	Activity
February 14-18, 1998	The National Committee invited all stakeholders concerned with the project to attend hearings and provide relevant information. On the second day of the hearing, PTT admitted that it had misled the public in saying that the pipeline construction must be completed by 1 July 1998 or they would incur a substantial fine. PTT could in fact start taking gas delivery as late as 1 August 1998 without incurring the fine. PTT also admitted that EGAT may not be able to finish building the power plant to receive the gas by 1 July 1998.
February 25, 1998	The National Committee submitted its report to PM Chuan and then to the public at Government House. The report stated that PTT had not been transparent in its implementation of the project, and that the EIA study had failed to adequately address the impact of the project on wildlife.
February 28, 1998	Prime Minister Chuan announced that the project would proceed: "... <i>in my opinion, the project cannot be scrapped. Eighty percent of the construction has been completed. I have decided that the project must continue</i> ".
March 2, 1998	Social critic Sulak Sivaraksa, commenced a sit-in protest at the forest construction site, calling for a new EIA for the project, following the findings of the National Committee's report. Other protesters joined him.
March 7, 1998	Mr Sulak and 40 other protesters were arrested for allegedly obstructing the laying of the gas pipeline. Other protesters later withdrew from the forest.
March 11, 1998	Piti Yamprasert, President of PTT Gas, expressed concern that Mr Sulak's opposition would have a negative impact on the PTT by arousing international pressure: " <i>I am relieved that Mr Sulak left the forest but worried that he would lodge a complaint against us at international institutions such as the International Monetary Fund</i> ".
April 3, 1998	<i>Bangkok Post</i> reported that the Governor of Kanchanaburi had forbidden students from educational institutes in the province from protesting against the <i>Yadana</i> gas pipeline project.
April 15, 1998	<i>Bangkok Post</i> reported that the head of PTT has pledged to honour the 30-year gas contract made with the <i>Yadana</i> consortium, ruling out any lowering of the agreed gas delivery volume and the price.

The following sections describe in more detail the key aspects of the controversy.

In March 1995, Thai environmental interest groups called for the pipeline proponents of both the Myanmar and Thai components of the project to release details of likely environmental and social impacts of the pipeline (*Bangkok Post*, 1995). Issues of concern to these interest groups included disturbance to forests and wildlife in the Thai/Myanmar border region, seismic risk to the pipeline stability<sup>26</sup>, social disturbance

<sup>26</sup> The highland region on the Thai-Myanmar border is a seismically-active fault zone.

to local communities, and concerns about the local residents' safety, given threats by ethnic Mon and Karen activists to sabotage the pipeline. The interest groups' request received no response from the project proponents. A lack of access to information on the project was perceived by these groups to be a block to public participation in the decision-making process. The *Bangkok Post* (12 March 1995) reported the director of the NGO, Toward Ecological Recovery and Regional Alliance<sup>27</sup>, as saying:

*"We have been trying to find out whether an environmental impact assessment has been conducted by the PTT but cannot get an answer."*

In June 1995, PTT engaged a Thai environmental consultancy firm to prepare the EIA report for the Thai component of the pipeline<sup>28</sup>. By this stage, PTT had chosen the pipeline route and dismissed all other potentially alternative alignments. The single proposed route included a stretch through 26 km of conservation forest and 18 km of a first-class watershed area in Kanchanaburi Province, a route apparently chosen to avoid militarily-sensitive border regions<sup>29</sup>.

In May 1996, the Thai Cabinet (led by Prime Minister Chavalit) approved the project in principle and gave approval to PTT<sup>30</sup> to build the pipeline in the Huay Khayeng forest reserve, a '1A' (first class) watershed area, subject to the endorsement of the National Environment Board (NEB). Later that month, PTT submitted the EIA report to the OEPP's expert committee on infrastructure projects, for review and recommendation to the NEB. The committee quickly rejected the EIA, and OEPP ordered PTT to conduct further studies of the impacts on wildlife and the forest, and hold a public hearing. Following a series of further reviews and revisions, the NEB officially approved the

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<sup>27</sup> The Toward Ecological Recovery and Regional Alliance (TERRA), is a relatively recent Thai initiative established by the NGO group Project for Ecological Recovery (PER) and others, which is designed to build grassroots regional environmental links (Hirsch, 1995).

<sup>28</sup> Note: At this time it was not a legal requirement for an EIA to be prepared for the pipeline project as it was not a 'prescribed activity'. The legislation was amended in January 1996 to designate pipeline projects as a prescribed activity. Pursuant to Sections 46 and 51 of the 1992 ECNEQ Act, *Notification No. 3 of the Ministry of Science, Technology and Environment Re: Prescription of Type and Size of Projects or Business of Government Agencies, State Enterprises, or Private Organisations Required to Prepare Reports on Environmental Impact Analysis* was issued on 22 January 1996. The Schedule annexed to *Notification No. 3* prescribes petroleum operations (pipelines, exploration, production), regardless of the size of the project) as an activity for which an EIA report is required.

<sup>29</sup> An alternative route that followed the Thai-Myanmar border down to Suan Phung district had been considered, but was discounted because of security concerns that minority groups in Myanmar might try to sabotage the pipeline.

<sup>30</sup> By this stage, the official project manager was PTT Gas, following restructuring of the parent corporation, PTT.



EIA on 24 March 1997. Construction work began on the Thai component of the pipeline in late March 1997.

At the suggestion of the NEB, a multilateral committee (comprising pipeline supporters and opponents) was established by PTT for the purpose of monitoring the environmental impact of the project, settlement of disputes resulting from pipeline installation, and providing information on the project to the public. The committee, chaired by the Kanchanaburi provincial governor, was reportedly empowered to oversee the activities of various agencies involved in the project implementation and impose environmental mitigation measures. It met for the first time in May 1997, but soon after, the two conservation groups represented on the committee withdrew, citing "*a lack of transparency*" resulting from the refusal of the committee chairman and project supporters to provide details of contractual controls on the pipeline installation (Inchukul, 1997a).

Between March 1997 and February 1998, environmental groups, including the Kanchanaburi Conservation Group, Wildlife Fund Thailand and Friends of the Asian Elephant Foundation, supported by a section of the local community, mounted a public campaign to protest against the pipeline. Opposition politicians also spoke out, claiming the contractors who were awarded the pipeline installation contract were linked to the government, and that PTT had agreed to purchase the gas from Myanmar at a price that was higher than other viable sources, such as the Malaysia-Thailand Joint Development Area (Ahmad, 1997e). Other accusations were made of corruption and unfair dealing in relation to payment of compensation monies to pipeline route landholders. A leader of a provincial conservation group accused PTT workers of

*"collaborating with kamnan [sub-district leaders] and village chiefs in the Thong Pha Phum district to embezzle compensation money earmarked for payment to landowners"*.

It was alleged that compensation rates were kept secret because they wanted to pay affected villagers at a lower rate than that determined by the committee. PTT was also accused of collaborating with influential community members to coerce villagers into letting the gas pipeline pass through their land.

*"They never explained to the villagers the dangers of having the pipeline on their land. They just told them to sign the land documents and take the cash. As a result all of them concurred"* (Ridmontri, 1997a).

All the while, PTT maintained an uncompromising stance regarding the project's deadline (1 July 1998) and the pipeline route.

The Thai Ministry of Industry criticised PTT's public relations campaign for intensifying the conflict with environmental groups. A spokesperson for the Ministry suggested that PTT had not done enough to explain to the public the objectives of the project, details of how the pipeline would be laid, and its environmental effects. In the spokesperson's opinion, PTT had failed to explain the importance of the project in shoring up rising domestic energy consumption in the future (*Bangkok Post*, 1997b).

Opposition groups, supported by the influential Bangkok-based English language newspapers, *Bangkok Post* and *The Nation*, also protested against a lack of transparency in the planning and EIA approval process:

*"The PTT had the time to carry them [wildlife studies] out, but it didn't have a sense of urgency. The oil company knew the OEPP would succumb to political pressure and pass the EIA rather than cause a delay in construction that would force the payment of penalties. And that is exactly what happened. The OEPP meekly accepted the PTT's promise to carry out further studies, and passed the report to the National Environment Board, which approved it forthwith" (The Nation, 5 May 1997 (Fahn, 1997a)).*

A spokesperson for the protest groups was reported as saying:

*"We are not against development projects per se, but we want the PTT—and other similar project agencies—to realise that we want them to inform and consult us. If the PTT had consulted the locals first of all, the EIA framework could have been set earlier and they could have examined alternative options for gas pipeline routes" (Janchitfah, 1997).*

In an article in the *Bangkok Post* on 4 October 1997 (Ridmontri, 1997b), PTT and the government approval process were again heavily criticised:

*"Without the legal requirement for the PTT to conduct an EIA [at the time it commenced project planning in 1995], the NEB was not obliged to weigh the validity of the EIA conducted by the PTT itself or to reject the project if the EIA failed to pass environmental muster. Its approval was a matter of course. Without this crucial legal mechanism, the technical hearing last February, at which the PTT revealed engineering details to conservation groups and the setting up of the monitoring committee thereafter, were meaningless. Everything had been accomplished without any input from conservation groups.*

*The state-minded monitoring committee did not question anything about the project for fear it would contravene government policy. It was dominated from the beginning by its bureaucratic members and others with vested interests, such as kamnan, village chiefs and the local media—the latter expecting to do very well from advertising from the PTT and businessmen who will benefit from the cheap energy.*

*The appeals by conservation groups to make the contracts public were met with claims that this would threaten "national security". Representing "national security" are a*

*handful of factories in the western industrial estates that will benefit directly from the power generated from the gas. Whether common villagers benefit is of no concern, and the destruction of forests, whether it be over 50 km or 6 km, is seen as a small sacrifice.*

*Having failed to make any ground as members of the monitoring committee, its grassroots and conservation groups can only provide information on what they see as the ill-effects of the project and keep an eye on the PTT's contractors. After all, the official record and reality are two different things.*

*As for the new monitoring committee, which incidentally is made up solely of government representatives, it can be expected to fare as well, or as poorly, as its predecessor. This is inevitable as long as the PTT insists on going ahead with the project without answering any of the important questions and continues to distort the views of its opponents."*

There is some evidence that PTT began to seriously consider some of the local concerns, albeit later in the year. In a *Bangkok Post* article of 7 December 1997, Ridmontri (1997c) reported that PTT was making a genuine attempt to minimise destruction of vegetation in the sensitive 50 km section of the pipeline route:

*"Despite cabinet approval that the PTT cut all trees along the 50 km forest section, Mr Songkiert [PTT Public Relations Director] said for the sake of nature, the PTT would remove and transplant valuable trees such as hardwood to other areas that are appropriate for them. Lert Chanthanaphap, a forestry lecturer at Kasetsart University who is hired by the PTT to oversee the transplant work, said trees with circumferences less than 60 cm would be removed and transplanted immediately. ... He said: 'We should praise the PTT for trying to transplant trees. We have to accept that the mission will not be one hundred percent successful but this shows that the PTT listens to the public and is committed to do the best for social good and the environment.' The transplant operation started on December 5 to celebrate the King's birthday."*

Nevertheless, in a *Bangkok Post* article published on 7 February 1998, Dr Songkiert Tansamrit, PTT's Public Relations Director reportedly stated that PTT could not yield to its opponents' demands for involvement because the project began when the previous constitution<sup>31</sup> was in force, "barring public participation" in decision-making in government development projects (Ridmontri, 1998a). This is arguably a narrow interpretation of the previous Constitution—Article 47 provided for people to participate in the debate on projects and activities that affect their livelihood (Janchitfah, 1998).

In early February 1998, amidst the ongoing protests and conflict (including clashes between protesters and pipeline workers), a group of prominent academics urged Prime

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<sup>31</sup> Thailand's current Constitution was promulgated on 11 October 1997.

Minister Chuan Leekpai<sup>32</sup> to set up a public hearing forum on the *Yadana* gas pipeline project (Chinvarakorn and Achakulwisut, 1998). A 'national committee', chaired by former Prime Minister Anand Panyarachun, was established to review the project, identify disputes between supporters and opponents of the project, and make project-specific recommendations to the government. The committee conducted a five day hearing in mid February 1998. The following were key revelations of the National Committee hearing (Dhongchai, 1998):

- i) *The claim that any failure to meet the 1 July 1998 deadline will incur hefty fines is unfounded. On 15 February 1998, PTT confirmed the conservationists' assertion that the date of commencement was 1 August 1998. Any penalty can only be imposed after that date.*
- ii) *Furthermore, EGAT's Ratchaburi power station construction is behind schedule, due to funding constraints, which will further delay acceptance of gas from Myanmar, a situation which PTT can negotiate with the Myanmar government.*
- iii) *EGAT's assistant director, Mr Sirithat Klankwamdi, testified that the construction of the Ratchaburi power station will increase the reserve electricity supply to 25%, based on the current forecast of electricity demand—the present reserve of electricity is calculated by EGAT to stand at 12% (as at February 1998). This reserve is considered to be in excess of requirements, particularly as power demand has decreased during the country's economic crisis.*
- iv) *Since signing the gas purchase agreement with Myanmar in 1993, PTT and EGAT had changed their plans for supplying the Thai electricity grid, such as bringing on-line additional gas from the Gulf of Thailand. As a consequence the generating capacity of the Ratchaburi power station may be downsized to 2,000 MW (cf. proposed capacity of 3,500 MW), leaving a surplus of gas coming from the fixed take or pay contract with the Myanmar suppliers.*

At the close of the hearing, Mr Anand stated:

*"I want to clarify that this conflict is not the fault of the PTT, the cabinet or the government. But it is the social failure of the decision-making process in this country. There will be no winner or loser in this case"* (Inchukul, 1998).

Following the completion of the public hearing, PTT was subject to damning criticism by *The Nation* newspaper on 24 February 1998 (*The Nation*, 1998a):

*"The deceptions, misleading statements and bare-faced misrepresentations of the PTT in support of its own agenda keep piling up. ... It used the fines written into the*

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<sup>32</sup> Prime Minister Chavalit resigned in June 1997. His successor, Prime Minister Chuan Leekpai, was elected in November 1997.

*contract it signed as a stick to beat back the arguments of conservationists, who had sought a delay and review of the project to lessen its impact on sensitive forests along the border. However, despite repeated demands, the PTT never allowed the public to see the contract itself. Now we know why. After EGAT announced during the hearings that the power plant would be delayed, perhaps for several months, PTT officials reported that it would not lose that much money after all: the Bt40 million it must pay to Burma would go toward future gas purchases. ...*

*The implication is clear: the PTT apparently believes that a delay caused by EGAT's construction woes is more acceptable than a delay aimed at trying to protect one of Thailand's few remaining forests....*

*There are plenty of other instances where the PTT has misled the public: The PTT has often claimed that the pipeline's entry point into Thailand at Ban I-Tong village in Kanchanaburi was agreed upon by both Thai and Burmese officials, implying that it is the best route for both sides. But at the hearings last week, the state oil company conceded that it was Burma which insisted on selling the gas at Ban I-Tong—thus forcing the pipeline to pass through Thailand's Huay Khayeng forest, a 1A watershed reserve—or not selling it to Thailand at all. The PTT claimed that it would take special care when working in forest areas, limiting the track to a width of 12 metres instead of the normal 20 metres. But a video taken of the logging in Huay Khayeng forest in January, and presented by Kanchanaburi conservationist Phinan Chotirosseranee at the hearing last week, showed that the operations were carried out carelessly. As some of the bigger trees were felled, they carved out a wide swathe of damage, knocking down other trees beyond even the 20 metre limit. PTT and Forest Industry Organisation officials reportedly stood and watched it all happen....*

*The PTT's approach seems to be to say whatever it thinks is necessary in support of the project, no matter how economical it is with the truth. ... If he [Piti Yimprasert, President of the PTT's natural gas business] had simply stated what the threats were and what had been done to counter them, most observers would have been satisfied. ... PTT must work harder to improve its environmental expertise. Its reforestation campaign is commendable, but protecting the environment is not just a matter of planting trees or donating money to fix problems. It must raise awareness about environmental effects at every level of its operations in order to minimise problems in the first place”.*

This media report was supported by the official review report handed down by Anand's National Committee to the public and Prime Minister Chuan on 25 February 1998. The report concluded that:

*“The process in deciding and implementing the project lacks transparency and fails to consider people's feelings, especially those affected directly” (cited by Ridmontri, 1998b).*

*"The project's decision-making is not transparent, and the EIA was conducted without public participation. Instead there was only public relations. ... It [the PTT] adheres to the old paradigm that the power of a state agency is above the rights and freedom of the people"* (cited by Fahn and Hongthong, 1998).

The National Committee found that PTT's failings in terms of public participation and environmental impact were key factors in the dispute. Committee Chairman, Mr Anand was reported as saying,

*"The entire committee agrees that the conflict surrounding the pipeline project was caused by a lack of information, so the government must learn from this case that it must distribute information and hold public hearings before approving any project"* (Fahn and Hongthong, 1998).

The National Committee suggested that the government act immediately to ease the impact on communities along the route and set up a body to monitor the mitigation of the social and environmental impacts. The Committee recommended that the body comprise more local people than officials and be chaired by a member of the NEB, with the OEPP as the secretariat. The previous committee, headed by the Kanchanaburi Governor, was perceived to have been ineffective because it was dominated by officials (Fahn and Hongthong, 1998).

In response to the National Committee's report, PTT Gas' President, Piti Yimprasert was reported in *The Nation* on 26 February 1998 as saying,

*"What is the definition of the public? If it only refers to villagers affected by the project, then I insist that we have given them enough information, and more than 90% of them agree with construction"* (Fahn and Hongthong, 1998).

Piti's statement of 26 February drew a scathing retort in an editorial in *The Nation* on 27 February 1998 (*The Nation*, 1998b):

*"The PTT's own EIA shows how ludicrous this argument is: a poll their consultants carried out showed that only two of 136 local people sampled understood what the project is; 110 said they had no knowledge about it at all. But it is precisely this issue of "public interest" which is at stake and is the root cause of the dispute, not only with this gas pipeline project, but also other controversial infrastructure projects throughout the country. The PTT and other such agencies do not seem to understand that public interest is not local interest. The PTT might think that the public interest is being served with gas from Burma to generate electricity, and community interest is served by getting support from the local village headmen after offering incentives and assistance. But public interest is far more subtle than that. The PTT is a state-owned agency and therefore "owned" by every single Thai. It is a national asset. So, too, is the watershed forest which is home to endangered wildlife and through which the pipeline is being built. Impartiality is therefore required to decide which asset must be*

*sacrificed for the other, and by how much”.*

A review of PTT's overall approach to this project seems to reflect an organisation whose culture is still strongly embedded in its origin as a state-owned enterprise. According to an article in the *Bangkok Post* on 8 March 1998 (Janchitfah, 1998):

*“The PTT believes they have acted for the good of the country, and that their actions have been legitimised by cabinet resolutions, the chamber of commerce and provincial authorities. These official organisations agree with the PTT that opponents of the gas pipeline project are “ill-intentioned”, violent protesters. They believe they have done their bit to conserve the environment.”*

When interviewed for this research in May 1998, the PTT Public Relations Director, Dr Songkiert Tansamrit, lamented that government officials have traditionally initiated the EIA process in Thailand. Further, the top-down management style adopted by PTT's senior management did not acknowledge the corporate social responsibility to provide for early or adequate on-going community involvement in its projects—it is too late to involve the public in a meaningful way, once the EIA has been prepared. As a result of his experience with the *Yadana* project, Dr Songkiert indicated that he is now a firm believer that there needs to be provision for early community involvement in the EIA process. Earlier in the year, following the release of the National Committee report, he was reported as saying that the national committee review process set a welcome precedent for resolving conflicts about large projects.

*“At least the PTT will use this process of public hearing as an integral part of future projects”* (Ridmontri, 1998b).

As discussed in Chapter 4, PTT Gas is also engaged in the Trans Thailand-Malaysia (TTM) gas project, which comprises construction of gas pipelines and gas separation facilities in southern Thailand. In April 1998, the Thai parliament's house committee reportedly voiced concerns over the environmental impact of the onshore section of the pipeline and called for the government to hold a public referendum into the project. This call was apparently not heeded by the government, but it was publicly stated that Thailand would have a public hearing prior to project approval (Battersby, 1998c).

According to a PTT Gas employee interviewed in July 1998, a new division (initially with four staff) had been established within PTT Gas, with a brief to conduct on-going environmental monitoring of the *Yadana* pipeline, and manage environmental studies for future projects. The interviewee stated that as a result of lessons learnt from the *Yadana* project, the engineering and environmental studies for new pipeline projects are being approached in a different way. At the time of interview, the company was reportedly conducting a pipeline route selection study, involving engineers and environmental scientists, and permitting personnel to identify landowners and

compensation issues. In this new pipeline project, the interviewee stated that PTT Gas had undertaken public consultation in the project area (Songkhla). (A Unocal Thailand employee interviewed in July 1998 independently stated that PTT had sought advice on community consultation from Unocal in regard to its new pipeline project).

The PTT Gas interviewee also stated that the company had taken heed of the community's concern over the credibility of PTT-appointed environmental consultants. Preparation of the EIA was put out to tender by consultants in early 1998, but PTT Gas subsequently changed its mind and assigned the EIA preparation to the environmental studies department of the Prince of Songkhla University, which has the trust and respect of the local community.

## 6.6 STAKEHOLDER CLAIMS AND STRATEGIES OF ENGAGEMENT

The following comparative analysis of the two case studies, draws upon the theoretical framework of influence-response relationships in stakeholder-organisation relations that was developed in Chapter 2. Summaries of the case study findings are presented within this framework in Table 6-3 and Figure 6-3 (Unocal Thailand mercury issue) and Table 6-4 and Figure 6-4 (PTT *Yadana* gas sales pipeline).

In the Unocal Thailand case study, the media and the Chulalongkorn University professor essentially represent the community's stakeholder claim. As indicated in Table 6-3 and Figure 6-3, these stakeholders' claims possessed the attributes of legitimacy and urgency, but they lacked power. As such, they can be classified as *dependent expectant* stakeholders (Mitchell *et al.*, 1997).

Similarly, the opposing stakeholders' claims in the PTT case study only possessed the attributes of legitimacy and urgency, and also therefore were *dependent expectant* stakeholders. However, PTT's supportive stakeholder group included local government officials and village leaders, which gave this group the additional attribute of power, thereby placing them in the category of *definitive* stakeholders (Table 6-4 and Figure 6-4). Following the release of the National Committee report in February 1998, the PTT project opponents acquired this attribute of power through the support of the report findings, but this empowerment came too late for them to achieve their aims for this particular project.

In both cases, the proponents (Unocal Thailand and PTT) had 'state approval' for their projects, but their opposing stakeholders, who possessed discursive legitimacy to speak for Thai society (or at least sectors of it), deemed that the companies did not possess social legitimacy in relation to their projects. As such, the opponents were attempting to change the social domain in which the proponents were accustomed to operating.



In the Unocal Thailand case, the media sought to redefine the routine operation of mercury discharge as a polluting activity which endangered ecological and community health. In the *Yadana* pipeline case, the project opponents sought to focus public concerns on wildlife and habitat conservation and inadequate public participation in decision-making processes, to challenge PTT's view of the project as serving the "national interest".

## 6.7 MANAGERIAL PERCEPTION OF SALIENCE

In developing the conceptual framework of corporate responsiveness presented in Chapter 2 (Figure 2-5), it is suggested that managerial perception of stakeholder salience can have a marked influence on how company managers react to stakeholder claims, and that managerial perception is in turn affected by the individual's backgrounds and positions.

In the case studies, the two proponents (Unocal Thailand and PTT) appear to have chosen different approaches to responding to the challenges issued by stakeholder claims, despite the apparent equal standing of the respective opposing stakeholder groups. The fundamental difference in approach appears to stem from the managers' perceptions of stakeholder salience. In preceding chapters it has been suggested that managerial perception of stakeholder salience is influenced by three categories of factors: 'external', 'moderating' and 'mediating'. Figures 6-3 and 6-4 highlight the specific factors that appear to have been most influential in each case study. These are discussed in the following sections.

### 6.7.1 External Factors

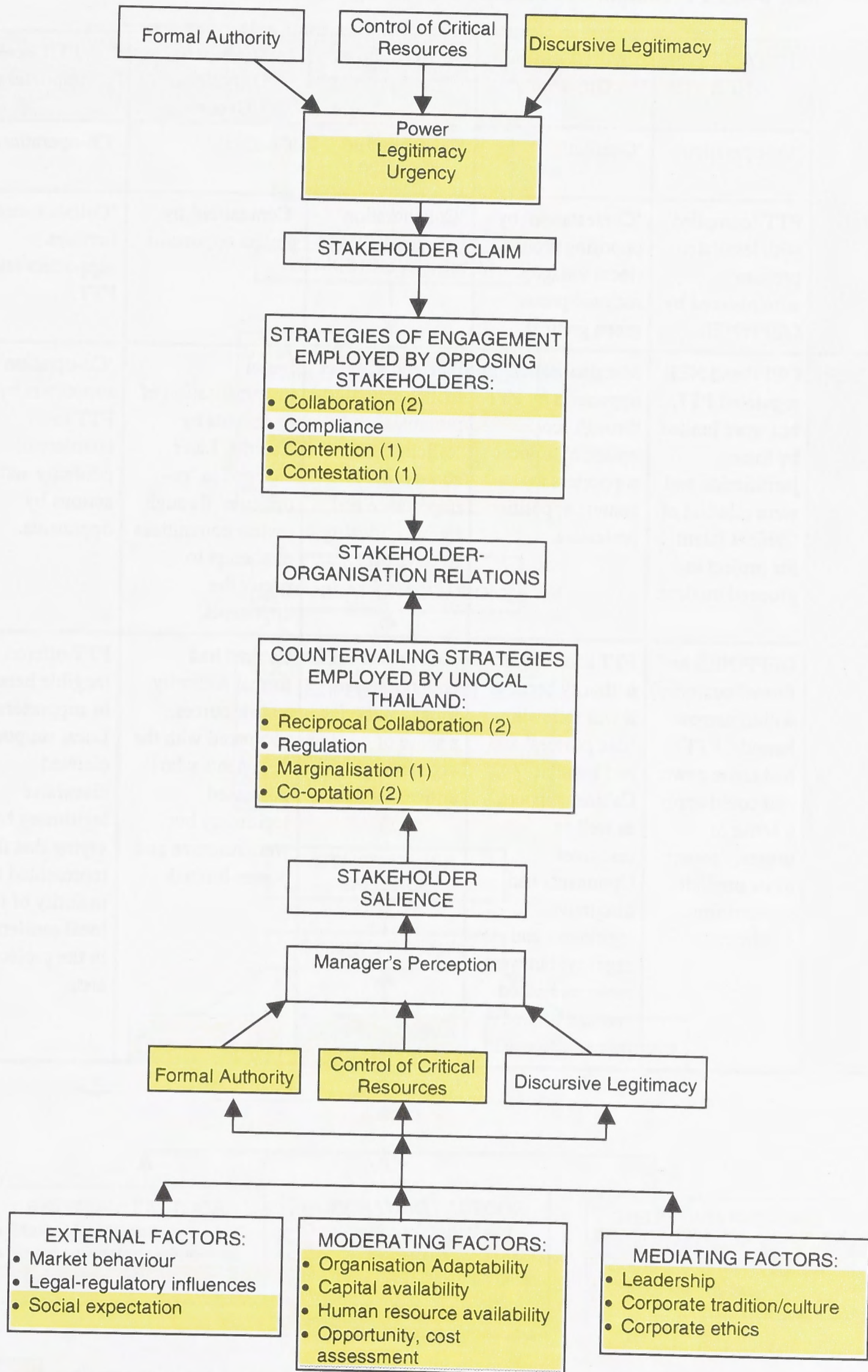
As suggested in Chapter 2, the external factors (market behaviour, legal-regulatory influences and social expectation) can be directly related to the concept of corporate social and environmental responsibility. A driving force behind this concept is the inherent threat that if companies do not take appropriate action to demonstrate that they are being responsive to society's expectations over the long term, the public may take the initiative to alter business' role in society. Changes may be introduced through the introduction of more government regulation, or some other form of unwelcome formal intervention in business' operations (Carroll, 1996).

It is not uncommon for stakeholders to demand that companies perform at levels which 'go beyond regulation'. As observed by Mechai Viravaidya, Chairman of PTTEP's Board of Directors, in Thailand there is a growing recognition of the shortcomings of its environmental legislation and government resources. The public now expects industry to drive itself to improve performance and respond to community expectations, and rely less on the government to set and enforce drivers (Viravaidya, 1998).

Table 6-3. Unocal Thailand Case Study—Stakeholder Relations

	Unocal/DMR	Unocal/Media	Unocal/ Chulalongkorn University Professor	DMR/Media
<b>Surface Dynamics</b>	'Co-operation'	'Conflict'	'Conflict'	'Conflict'
<b>Strategy of Engagement</b>	Unocal complied with 'due process' for reporting and media relations.	'Contention' by <i>The Nation</i> and the <i>Bangkok Post</i> .	'Contestation' by the Professor regarding the findings of his research on mercury levels in the Gulf.	'Contestation' by the newspapers regarding the release of information.
<b>Countervailing Strategy</b>	Unocal initially followed due process, but then sought to increase its power base through 'co-optation' to change its approach.	Unocal initially attempted to marginalise the media's claims while complying with due process, but then sought 'co-optation' through its open door policy.	Unocal initially tried to marginalise by querying scientific integrity of results, but then changed to 'co-optation' to assist with new strategy formulation.	DMR initially tried to use its authority to control information flow, and then it 'co-operated' with Unocal to permit direct dialogue between Unocal and the media.
<b>Power Distribution</b>	DMR had formal authority and resources, but Unocal had legitimacy and rapidly rallied resources, so it could seek authority to speak on its own behalf.	Media had discursive legitimacy and resources. Unocal initially lacked authority and resources, but acquired power and resources and therefore gained a definitive position.	Unocal had authority (as owner of the Professor's data) and resources, but the University had the power of an academic institution level power with a higher level of respect in Thai society, relative to industry.	DMR had authority. Media had discursive legitimacy and resources.
<b>Apparent Outcome</b>	Improved working relationship in terms of stakeholder relations and shared responsibility for decision-making.	Improved working relationships through dialogue rather than dispute.	Co-operative research and work programmes—shared resources and interests.	DMR forced to accept new paradigm of community right to know and company right to speak on its own behalf.

Figure 6-3 Influence-Response Relationships: Unocal Thailand Case Study

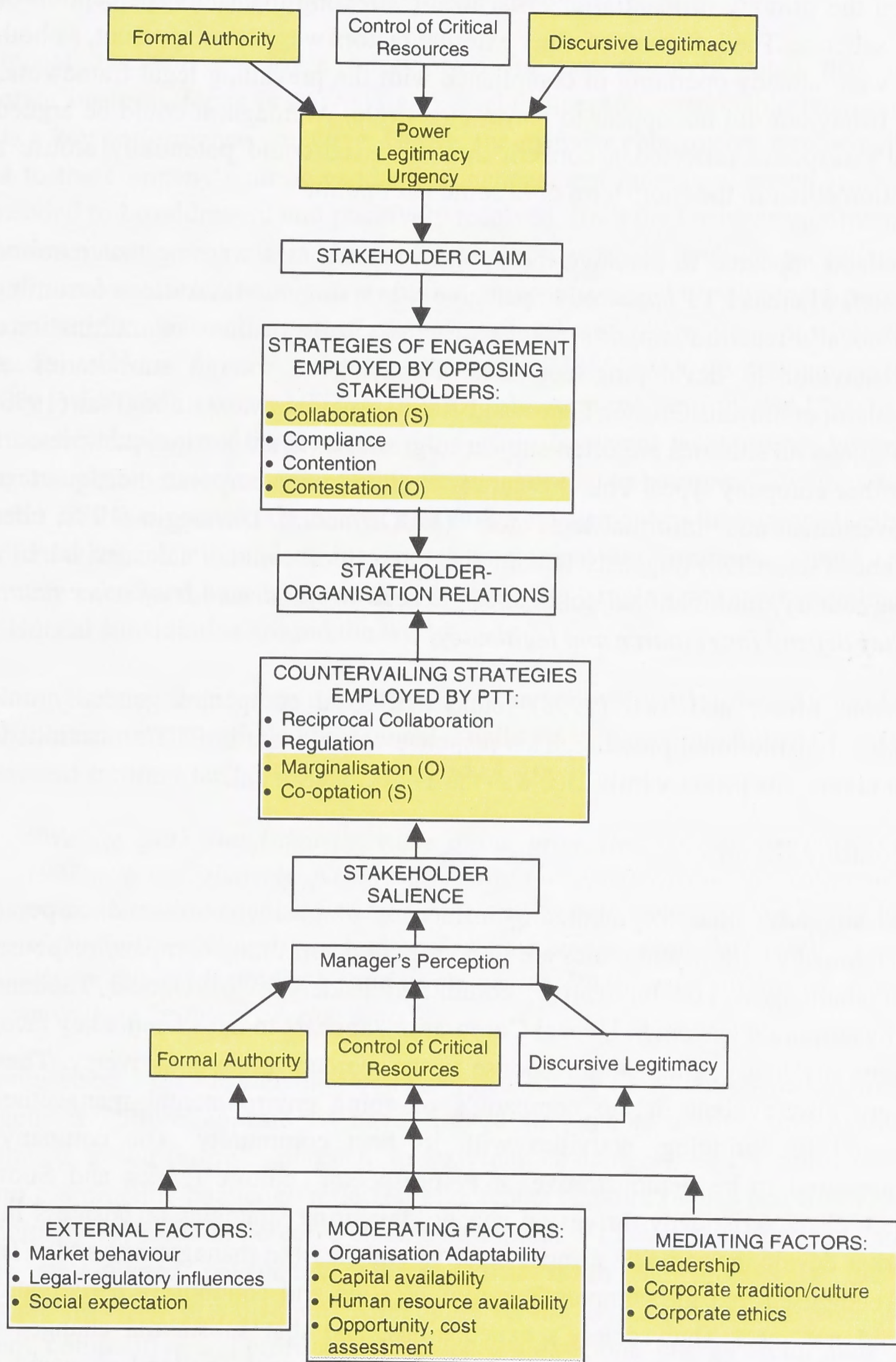


**KEY:**  indicates apparent presence of influence or strategy. (1) Indicates initial strategy used with or by Unocal's opposing stakeholders (2) Indicates final strategy used with or by Unocal's opposing stakeholders

Table 6-4. PTT Yadana Gas Pipeline Case Study—Stakeholder Relations

	PTT/OEPP & NEB	PTT/Pipeline Opponents	PTT/Cabinet	Cabinet/ Opposition Groups	PTT/Local Supporters
<b>Surface Dynamics</b>	'Co-operation'	'Conflict'	'Co-operation'	'Conflict'	'Co-operation'
<b>Strategy of Engagement</b>	PTT 'complied' with legislated process administered by OEPP/NEB.	'Contestation' by opposing groups (local villagers, national press, green groups).	'Collaboration' between PTT and Cabinet.	'Contention' by project opponents.	'Collaboration' between supporters and PTT.
<b>Countervailing Strategy</b>	OEPP and NEB regulated PTT, but were limited by their jurisdiction and were mindful of Cabinet intent for project to proceed on time.	Marginalisation of opponents by PTT through 'co-optation' of local supporters to contest opposition protesters.	PTT and Cabinet 'collaborated' to promote the 'official line' about project importance and timing criticality to stave off criticism.	Initial marginalisation of opponents by Cabinet. Later changed to 'co-optation' through review committees to attempt to pacify the opponents.	'Co-optation' of supporters by PTT to countervail publicity and actions by opponents.
<b>Power Distribution</b>	OEPP/NEB had formal authority within narrow bounds. PTT had some power and could apply a sense of urgency owing to its implicit support from Cabinet.	PTT had formal authority because it was following 'due process' and had implicit Cabinet support, as well as resources. Opponents had discursive legitimacy and urgency, but were resource limited and had limited power.	Cabinet and PTT both possessed formal authority, a sense of urgency and critical resources.	Cabinet had formal authority and resources, compared with the opponents who possessed legitimacy but were resource and power-limited.	PTT offered tangible benefits to supporters. Local supporters claimed discursive legitimacy by saying that they represented the majority of the local residents in the project area.

Figure 6-4 Influence-Response Relationships: Yadana Gas Pipeline Case Study



**KEY:**  indicates apparent presence of influence or strategy. (O) Only applicable to PTT's opposing stakeholders (S) Only applicable to PTT's supporting stakeholders

In both case studies, social expectation, expressed through community outrage, appears to have been the primary influential external factor affecting managers' perception of stakeholder salience. The influence of other external factors was not so apparent, as both proponents were already operating in compliance with the prevailing legal framework, and market behaviour did not appear to play a direct role. Although, it could be argued that Unocal's response reflected a concern that the issue could potentially arouse a market reaction either in the short-term or at some later point.

Unocal Thailand appeared to perceive the public backlash as a warning that required positive action, whereas PTT appeared to perceive it as a time- and resource-consuming nuisance. Unocal's reaction supports other researchers' observations of multinational company behaviour in developing countries. Referring to foreign subsidiaries of multinationals operating in Greater China and Latin America, Moser and Tsai (1998) suggest that these subsidiaries are often subject to greater external institutional pressure relative to other company types. This pressure is exerted by the corporate headquarters, the host government and 'informal legislators' (NGOs/media). DiMaggio (1988, cited by Moser and Tsai, 1998) suggests that in the interest of commercial survival in a foreign host country, multinational companies "*accede to the demands of other actors on which they depend for resource and legitimacy*".

In comparison, Moser and Tsai (1998) found that local companies generally only respond to local institutional pressure. This response was evident in PTT's reactions to stakeholder claim—its primary influence was the Thai Government.

### 6.7.2 Mediating Factors

It has been suggested that the mediating influences of business unit and corporate leadership, company culture and ethics are important in determining company responses to external challenges. The innovative, committed leadership of Unocal Thailand, supported by corporate leaders in Unocal Corporation, appears to have been a key factor in the success of Unocal Thailand's response to the mercury issue controversy. These attributes are also evident in the company's on-going environmental management initiatives, and its 'bridging' activities with its host community. The company's approach appeared to be demonstrative of a 'prospector' culture (Miles and Snow, 1978), which characteristically thrives on change, favouring strategies of business line and/or market development using a more creative and flexible management style. The managers recognised that the company's communication and community participation practices did not meet Thai society's expectations, and that substantial changes to approaches and procedures were required immediately. Unocal Thailand appeared to adopt a multiple stakeholder stance in its response to the mercury issue, and in the upgrade of its company-wide management system. Companies subscribing to this approach will often go beyond the minimum obligations of corporate governance,

advocating that the performance of the company should be measured in a much more pluralistic way than through its bottom line (Johnson and Scholes, 1997).

A Unocal Thailand employee interviewed for this research stated that Unocal's corporate business focus is on Asia and establishment of sustainable business in this area is a key performance objective. Hence, the mercury controversy was perceived as a threat to the company's aims, and senior management quickly assessed it as an issue that needed to be addressed and positively resolved. Both the business unit management and senior management within Unocal Corporation provided positive, proactive support for additional ecological monitoring studies, and research and development programmes to improve treatment and disposal of the produced water. The amount of expenditure required to address these issues was substantial (US\$550,000 to conduct research on mercury levels and impacts, US\$200,000 for follow-up monitoring, and US\$6.5 million spent on developing and implementing the water treatment technology), but corporate management reportedly considered this financial outlay to be minor in comparison with the value of the corporation's current and future investment in the region. Furthermore, the internal organisational learning and technological developments gained from this work were perceived by management to be valuable benefits that could be shared with other Unocal subsidiaries around the world.

The company's strategic vision is evident in the following statement by the Director, Health, Environment and Safety, Unocal Thailand, in the company's "1998 GO-HES Review and Action Plan" (Unocal Thailand Ltd, 1998):

*"We are quite proud that the value of our pro-activeness was demonstrated during 1997 with the relatively quick resolution of the mercury issue, the acceptance of our environmental impact assessment for the drilling in the Andaman Sea and by being one of the first E & P companies in the world our size to obtain ISO 14001 Certification. We see this as identifying Unocal as an industry leader and providing us a competitive advantage for future developments".*

In comparison, the leadership demonstrated by PTT's entrenched bureaucratic management culture appears to have limited the vision of that organisation, and encouraged a 'buffering' approach to external challenges. PTT's approach to the *Yadana* gas pipeline challenge reflected a 'defender' culture (Miles and Snow, 1978)—the company appeared to perceive change as a threat. PTT was introduced in Chapter 4, as the state-owned petroleum enterprise that is in the process of undergoing corporatisation and privatisation in response to the perceived need to become more efficient, competitive and profitable in the local and regional energy sector market:

*"The new corporate reorganisation of PTT has been focused on a more business-oriented role with international standard measure for operational appraisal. Human resource development is encouraged to cater for the state-of-the-art technology*

*selection for the work system improvement for reduced costs and quickening work stages on a par with leading private sector agencies. However, PTT will not ignore its major function as a state tool in creating energy security of the country concurrently with a resolute stand point in environmental preservation” (PTT, 1996).*

Despite its rhetoric, PTT applied a bureaucratic approach to handling the *Yadana* controversy and employed a strategy that sought to provide continuity and security to its preferred modus operandi. PTT management appeared to regard the opposition it encountered as being a problem that had arisen from external project constraints imposed by the government’s contractual obligations and the urgent need to serve the “national interest”. As such, PTT claimed that it was doing its best, under the circumstances, and, therefore, should be allowed to continue as originally planned. Overall, it appeared to adopt a ‘short-term shareholder stance’ (Johnson and Scholes, 1997). Its primary focus was on attending to the interests of its shareholders, in this case, the Thai Government.

Evidence suggests that PTT may take some time to evolve from its entrenched state enterprise culture. According to Handley (1997), PTT is regarded as one of the more efficient Thai State enterprises, but has historically been under strong army influence and, as indicated earlier, there is evidence to suggest that its privatisation has been resisted and compromised by internal political agenda.

An interviewee from PTT’s publicly-listed subsidiary, PTTEP, observed that PTT still has an entrenched state government enterprise mentality and took a bureaucratic approach to community consultation, which led to the community backlash over the *Yadana* project. Another petroleum company interviewee observed that PTT has historically only managed relatively small projects and therefore, when the company embarked on the *Yadana* project, key staff lacked experience of big projects and an understanding of the associated issues and level of public interest. The interviewee suggested that PTT’s lack of experience was reflected in its initial poor handling of public relations, and its decision to take a “*cheap approach*” in engaging its EIA consultant, with the result that the EIA was of poor quality. Another inherent problem in PTT’s approach was perceived to be the company’s “*engineering mindset*” which limited the organisation’s vision to technical matters—they failed to see that society’s perceptions have been changing and that environmental law expectations are evolving.

To summarise, it is suggested that the individual approaches taken by Unocal and PTT reflect the differing managerial perceptions of stakeholder salience and cultures of these organisations.

### 6.7.3 Moderating Factors

Moderating factors, as defined in this study include organisational adaptability, capital availability, human resource availability, opportunity and cost assessment, and



technology. In terms of their influence on managerial decision-making processes, both proponents (Unocal and PTT) appeared to possess adequate resources in the form of available capital, human resources and technology to address the issues in question, but Unocal appeared to demonstrate relatively superior organisational adaptability (compare Figure 6-3 with Figure 6-4).

Organisational learning and stakeholder salience are believed to be key influences on corporate social and environmental responsiveness. Post and Altman (1992) suggest that *“effective responses to social concerns occur where managers have explicitly processed lessons learned from past experience”*. According to a Unocal Thailand interviewee, when the mercury controversy emerged, personnel within the Unocal Corporation drew upon previous learning experiences. They had observed the public relations impact of public outcry over mercury concerns in other projects in the US. Therefore, when they saw the same issues arising in Thailand, they recognised the potential problems and quickly took action. This example reinforced the earlier learning, so there was no hesitation in taking action, and the controversy was not dismissed as a one-off issue to be ignored.

Unocal’s response to the mercury controversy appears to be an example of ‘double-loop’ organisational learning (Argyris and Schön, 1978). The company recognised that it not only needed to constructively address the issue at hand, but also revise its whole approach to operating within Thailand’s changing social framework. From the company’s perspective (McDaniel *et al.*, 1998), this incident highlighted a number of issues, including:

- *“the need to develop “an approach to environmental issues through an understanding of the ‘outrage factors’ which make people upset”;*
- *“the importance of working within—rather than against—the cultural and legal expectations of different lands”;* and
- *“the process of identifying and involving stakeholders and credible sources of information”.*

Neale (1997) suggests that, while organisational learning is a necessary condition for the environmental innovation that is required to demonstrate corporate social and environmental responsiveness, it should be accompanied by a willingness to ally with others to achieve real change. Unocal Thailand appeared to demonstrate a high capacity for learning and a high capacity for alliance building, thus enabling the organisation to develop and implement innovative ideas in association with its stakeholders.

A Unocal Thailand employee interviewed in May 1998, said the company has launched a “Friendship to Communities Programme”. The company was said to be planning a

new project in the Gulf of Thailand, to which it was applying lessons learnt from the *Yadana* pipeline and mercury issue controversies. The company is striving to be open, communicative and inclusive from the early planning stage, and is involving the public in development of the terms of reference for the project's EIA. Stakeholders have been identified to include NGOs, joint venture partners, other exploration and production companies, local environmental groups (e.g. Songkhla Action Group (SAG)), media and government departments. SAG was reportedly identified through the Prince of Songkhla University and other key contacts, but, in order to win their trust and engage their co-operation, Unocal Thailand needed to demonstrate sincerity—SAG had expressed a concern that it did not want to be “used” to endorse the company's activities.

Unocal Thailand has also been actively promoting its learning experiences amongst its industry peers. For example, the company was encouraging neighbouring Gulf of Thailand operators to all use the same laboratory to analyse samples collected in their respective mercury monitoring programmes, so that the results can be validly compared and compiled in a common database.

*“Through our environmental management system, Unocal Thailand has been actively studying the impacts and evaluating treatment technologies for produced formation water since 1990, disclosing our information to the government at every stage. We have generated an extensive database of both baseline and repetitive sampling results. More importantly, this effort over the past seven years has led to a variety of breakthrough technologies including skim tanks with Vortex tubes, hydrocyclones combined with a Unocal patented process of chemical flocculation, and, in some cases, deep well injection. ... It is the kind of data that will allow industry and government to jointly make sound management planning decisions”* (Marcotte, 1998).

The reported changes to PTT Gas' operating procedures in mid-1998 suggest that PTT also possesses a measure of organisational adaptability, but it appeared to have been driven by institutional pressure, as compared with the apparently strong element of innovation in Unocal's actions. The extent to which PTT has undergone double-loop organisational learning as a result of the *Yadana* gas pipeline experience is unclear.

According to Neale (1997)'s model of organisational learning and capacity for alliance building, PTT demonstrated a theroretically high capacity for learning, but a low capacity for alliance building with its opponents. It appeared to be trapped in the 'groupthink' organisational mindset, which inevitably led to confrontation with its opponents. As observed by a petroleum industry interviewee “[PTT] is state-owned and therefore still thinks that they can do what they want”.

Some of PTT's industry peers have expressed a level of scepticism about how long it will take PTT to fully learn the lessons of the *Yadana* project experience. A petroleum company employee, interviewed in May 1998, indicated that he did not believe that an appreciation of the key issues had yet been cultivated within middle management of

PTT. The interviewee perceived that development of such an appreciation would be a slow process—largely because he believes that it takes longer to change the culture of a state enterprise as compared with a private sector company. The interviewee observed that the *Yadana* pipeline controversy was PTT's first "bad experience", and therefore some of PTT's staff consider that it just may have been "bad luck". In comparison, he suggested that EGAT, another state enterprise, has been through many learning experiences with its power projects and over time has learnt to be more environmentally aware and communicative than PTT. (This observation was also independently made by an interviewee from the print media).

To conclude, the outcomes of the learning experiences of the case study proponents suggest that the more progressive responses to social and environmental concerns were initiated by Unocal Thailand, because it recognised the 'bigger picture' implications of its actions and the need to protect its reputation. In particular, the public challenge to its 'licence to operate' appeared to be especially important for Unocal Thailand, whose competitive advantage, it believes, lies in being "first", "biggest" and "best".

#### 6.7.4 Legitimation Strategies

From an issues management perspective, a company must determine how best to engage its stakeholders, so that their respective interests and goals are not irrevocably opposed to one another. The cultural context, and the outcome of the analysis of the stakeholder environment often determine the company approach. Unocal Thailand's actions appeared to reflect the 'stakeholder synthesis' approach (Goodpaster, 1991). The company recognised that it had moral responsibilities to its stakeholders and should conduct itself ethically, while protecting fiduciary interests of its shareholders at the same time. PTT's action appears to reflect the 'strategic' approach (Goodpaster, 1991), that is, it seemed to view its stakeholders primarily as factors to be taken into consideration and managed while the company pursued its project for the benefit of its shareholders (the Thai Government).

In the Unocal case study, the company's managers appeared to change their perception of the stakeholder claim relatively quickly, and moved to adopt an inclusive and collaborative strategy to engage the regulators and academic authorities, while adopting an apparently 'co-optative' (Hardy and Phillips, 1998) strategy to handle media relations. As described by McDaniel *et al.* (1998, p. 5),

*"Unocal Thailand discovered that, although it had performed mercury monitoring and conducted health and ecological studies in the past, the company could not gain credibility with the press or the public without a proactive strategy to make those results available. ... It is important for a multinational company to understand the practices and customs guiding the media in the countries where it does business, and to establish lines of communication that are as open as possible within the cultural*

*context. Unocal Thailand initially made the error of assuming that the practice of communicating with the press through a Thai agency would last indefinitely. Once the situation demanded the personal involvement of the company's top managers, Unocal Thailand had to hurry to get prepared."*

Collaboration, as an engagement strategy, may be seen as a means of reducing uncertainty, acquiring resources, and solving problems (Hardy and Phillips, 1998; Larsson *et al.*, 1998). Unocal Thailand saw an opportunity to use collaboration as a way to positively engage and empower its stakeholders and co-opt them to assist with resolving the concerns. Its management responses to the challenge were characteristic of the company 'legitimation' strategies that have been described by Epstein and Votaw (1978) and Lindblom (1994).

Collaboration may also be used as an engagement strategy to defend against incursions by new stakeholders who want to redefine the domain in a way that threatens existing patterns of advantage (Dutton and Duncan, 1987). In the *Yadana* case study, PTT supporters appear to have been engaged in collaboration with the proponent for the purpose of marginalising some of the opposing locals' concerns and claims. Dr Surichai Wankaew, Director of Chulalongkorn University's Social Development Studies Centre, in Kanchanaburi, was reported to say that some participants in the controversy had attempted to localise the issue by the divide-and-rule strategy, branding the gas pipeline project protesters as "*ill-intentioned people*" or the opposition (Janchitfah, 1998).

PTT's approach also demonstrated usage of its superior political weight and power to manipulate and repress its critics. As reported by Ridmontri and Techawongtham (1998) during the pipeline controversy,

*"At first, only the local Kanchanaburi Conservation Group and a couple of other environmental NGOs demanded the PTT reassess the environmental impact. Perceived as the underdog, they captured the public's attention and sympathy earlier and caused some consternation to the developer. The PTT fought back. But being new to fighting for public opinion, it was clumsy at first. It provided very few facts to the public and was seen as using coercion and threats against complaining residents. It stonewalled the opponent's demand for details of the contracts it signed with the gas exploration consortium and its contractors."*

*[Now] "The PTT is showing the most savvy in dealing with its foes by agreeing to engage in a series of talks with its opponents, even at the expense of halting construction for a few days during the talks. But all attempts not surprisingly have failed to yield any substantive results. Indeed, it can be seen as an attempt by the PTT to buy time and pacify its opponents, stringing them along until they become exhausted and the PTT gains the upper hand. Its sincerity to resolve the dispute is questionable given its insistence that the pipeline route could not be diverted even from the 6 km stretch of fertile forest, allowing no room for compromise ... For their part, the opponents can rely on their only source of support - from sympathisers among NGOs,*

*students' groups, academics and environmental lawyers - to get their message across through the press. But their meagre resources cannot compare with the PTT's, and this shows in the disarray of the movement, the low morale of its troops, and their leaders' feeling of isolation and frustration. Most of the public appear to be no better informed of their cause. If it has shown any interest at all, it is that it will benefit from cheap energy. The opponent's threat to sue the PTT was not taken seriously and is unlikely to succeed. They also have got nothing from all the negotiations with the PTT".*

The strategies adopted by Unocal Thailand and PTT may also be analysed using the strategic choice model of Ghobadian *et al.* (1998). Unocal Thailand appeared at the outset of the mercury controversy to be a 'compliance plus' company. It had adopted a relatively proactive stance in addressing its mercury production and disposal problem, and had introduced management systems to enable the company to monitor and verify its operations, and implement change. However, as a result of the communication challenge issued by its opponents, Unocal Thailand appeared to adopt the characteristics of a 'speculative commitment' company. While its actions were commendable, it is suggested that they were primarily financially driven (commercial risk), and therefore are not demonstrative of an 'excellence or leading edge' company, despite the company's self-perception as "*an industry leader*" (Unocal Thailand Ltd, 1998).

In comparison, PTT's behaviour in the *Yadana* gas pipeline case study appeared to fit Ghobadian *et al.* (1998)'s description of a 'compliant' or 'restrained commitment' company. The company's performance was fundamentally reactive, and it appeared not to have recognised the degree of its social and environmental responsibility for the issues involved. 'Restrained commitment' companies characteristically may feel the need to make environmentally aware statements of intent, but experience little in the way of external pressure to convert these attitudes into actions. However, if circumstances shift and pressures develop, a 'restrained commitment' company may develop active policies to meet its previously espoused environmental commitments. 'Restrained commitment' companies are therefore expected to have well developed contingency plans, based upon the managers' perception of likely moves in external factors, and the potential offered by the company's moderating factors (Ghobadian *et al.*, 1998). In the *Yadana* pipeline case study, PTT's contingency plans appeared in the form of aggressive public relations activities, and collaboration with the project supporters to rebuff the challenges of the project opponents.

## 6.8 CONCLUSIONS

The case studies demonstrate the intensely competitive nature of the agenda of the existing social 'forces' in Thai society, and support the observations of environmental and social activism by other researchers (e.g. Baker, 1995; Hirsch, 1995; Lohmann, 1995; Phongpaichit and Baker, 1997; and Rigg, 1995).

Since the Second World War, Thailand has experienced the emergence of a new society of industrialisation, in which each of the main forces in the political environment has established its own political space. Rigg (1995) observed that the need for environmental protection is now broadly accepted by the Thai Government to be important, whether for environmental, socio-economic or political reasons (or for all three). Over the last 50 years or so, the profile of the environment has moved from receiving little attention from policy-makers, politicians, the media and assorted interest groups, to now heading the agenda of many of these. A powerful intellectual movement, promoting local perspectives on the environment and its value and protection, has emerged with the clear message that state approval of an activity does not imply community approval or acceptance. This message is graphically expressed in the following quote from *The Nation*:

*“How appropriate that the one major body of water named after our country is a total environmental mess. The Gulf of Thailand’s fish stocks are seriously depleted, its coral reefs degraded and mangrove forests denuded. What’s more, it must absorb immense quantities of toxic and organic filth. ... Greater attention has been paid to what may be the most dangerous pollutant, mercury, and the role of natural gas producers Unocal and Total in discharging this neurotoxin into the Gulf. Public exposure has helped spur them to tackle this problem more urgently, but keep in mind that we largely depend on the oil companies to monitor their own activities, and tell us the results. There are also many other sources for the mercury (and other dangerous chemicals) found in the Gulf which have yet to be revealed, particularly on the Eastern Seaboard. Some state agencies—the Harbour Department, the Department of Mineral Resources, the Fisheries Department, and the Food and Drug Administration (FDA)—may have information on these contaminants, but they are not talking to each other, much less the public. Their negligence borders on the criminal. The Pollution Control Department may yet become the independent auditor we so desperately need, but it still lacks the budget, manpower and equipment to do the job thoroughly. In the meantime, industry is expanding, not just in Thailand but around the Gulf. We all have to sound the alarm now, using our power as consumers, as voters and custodians of the planet”* (*The Nation*, 8 April 1997).

In both case studies, newspaper reporters were highly influential, testifying to the great degree of freedom that the privately-owned print media holds in Thailand, and hence the power it can exert when teamed up with other stakeholders who hold one or more of the key attributes. The social forces use the attributes of power, legitimacy and urgency to stake their claims to salience. The freedom of the press, combined with a rising level of environmental awareness, has made it possible for Thai NGOs to use the media as one of their strategies for effecting change (Baker, 1995), as demonstrated throughout the last 20 years or so of Thai social activism.

The two case studies also testify to the complexity of stakeholder-organisation relationships between industry, regulators and social ‘forces’. The extent to which

managerial perception will change in response to a strengthened stakeholder claim appears to be linked to the behaviour altering factors identified by other researchers, like Ghobadian *et al.* (1998). In the Unocal and PTT case studies, mediating and moderating factors, such as corporate culture, leadership and organisational adaptability, appear to have been particularly important. The differences between lessons learnt from past experience, the company managers' perception of the company's legitimacy, and their view of the saliency of external stakeholder claims, were clearly evident and explicable.

Company responses to environmental issues and stakeholder challenges to the social domain are also dependent on managers' perceptions of the situation, and their perceived responsibilities. The following example serves to highlight this point. Total Exploration and Production Thailand (TEPT) was, until July 1998, operator of the Bongkot gasfield in the Gulf of Thailand. (PTTEP assumed the operatorship in July 1998). Like Unocal Thailand, TEPT encountered mercury in its produced gas, and discharged mercury in produced water. According to Fahn (1997b),

*"Despite being warned about mercury contamination by Unocal officials, Total apparently did not survey the situation around its own platforms until the issue was made public last year [1996]. The company acknowledges in the May 1997 issue of PTIT Focus, an industry quarterly, that its first survey took place in 1996. ... Total's operation is smaller than Unocal's and has only been in operation a few years, so mercury levels are not expected to be as severe. But Total's lack of transparency surrounding the survey may cause the results to be viewed with suspicion. ... There is some indication that Total has been under pressure to address the situation by its partners in the Bongkot venture: the Petroleum Authority of Thailand Exploration and Production Plc (PTTEP), which is the largest shareholder with a 40% stake, British Gas, which controls 20% in the venture and Norway's Statoil (10%). ... PTTEP is due to take over the operation of the Bongkot field next year [July 1998] and is apparently concerned that it may become responsible for the mercury problem."*

In this instance, Total, as the retiring operator, appears not to have a long or even medium-term interest at stake, and therefore little apparent concern about external stakeholder interests. Whereas its joint venture partners, particularly the incoming operator, PTTEP, apparently perceived the issue to have a degree of urgency, and hence had a different attitude to the issue. PTTEP's attitude was more in line with Unocal's perception of the negative long-term implications of adverse stakeholder reaction.

The case studies demonstrate that it is possible to understand, and by inference predict, why and how individual companies adopt particular short-term management strategies, as well as longer-term strategic stances. These case studies also provide some insight into company-stakeholder relationships, and engagement strategies. The findings of the case studies (see Tables 6-3 and 6-4) appear to support Hardy and Phillips' (1998) observation that stakeholder engagement strategies of 'collaboration' and 'contention'

appear to represent the greatest potential for synergy and innovation. While 'contention' is often thought of in negative terms, both 'collaboration' and 'contention' in stakeholder relations can produce positive outcomes, providing corporate managers are prepared to respect the viewpoint of their opponents and work within the cultural framework of the society in which they operate. The case studies demonstrate that politically astute stakeholders will learn how to form alliances with other interested parties in order to acquire the attributes they need to improve their standing, so that they can use their collective power, legitimacy and urgency to achieve their aims.

This insight, when carefully applied, could be used by regulators to determine ways of harnessing the corporate virtue of socially-minded companies, and to coerce the more internally-focussed and conservative companies to be socially and environmentally responsible and responsive to the expectations of a broader range of stakeholders. These observations could also assist regulators to design mechanisms for tripartism that harness the problem-solving benefits offered by both collaboration and contention.

The following chapter develops these ideas within the framework of corporate social and environmental responsibility.



# CHAPTER 7

## CORPORATE SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

[There is a] *“fundamental problem—public distrust of the industry to adhere to strong environmental, health and safety standards; public distrust in the capacity of regulators to effectively protect public interests. ... How can industry better align its business goals with public expectations. How can business better involve the public in decision-making, share control, and demonstrate industry is protecting the environment. The bottom line is how does industry establish a relationship with regulators and the public to build a solid foundation of trust”* (Klein, 1998, p. 11).

## 7.1 INTRODUCTION

Corporate social and environmental responsiveness is described in Chapter 1 as the interaction of the corporation with the legal, social and environmental performance expectations of the societies in which it operates, and how it accounts for those obligations. This study seeks to improve our understanding of the factors influencing corporate social and environmental responsiveness, in the context of upstream (production and exploration) petroleum companies operating in South-East Asia, and specifically Thailand.

The opening quote to this Chapter suggests that the petroleum industry needs to demonstrate social and environmental responsiveness to convince the broader stakeholder community that the industry should continue to hold its 'licence to operate'. The hypothesis of this study, however, suggests that compelling commercial pressures act against philanthropic interests and may discourage industry from working towards that objective:

*The social and environmental responsiveness practised by companies is moulded by their assessments of the business risks posed by the stakeholder environment. In the absence of an appropriate balance of power between companies, their regulators and third party stakeholders, company management practices will tend towards a minimalist position to maximise financial returns.*

The purpose of this Chapter is to identify how that balance of power could be established using regulatory mechanisms. The insight gained from the empirical observations and secondary information (presented in the preceding chapters) is used to identify ways in which regulatory approaches in Thailand, and other similar regulatory systems, could be improved to achieve the design objectives of 'responsive regulation'.

Analysis of the findings of the preceding chapters, and development of recommendations, is undertaken using an approach similar to that outlined by Gunningham and Sinclair (1998) for the development of regulatory policy. Following their general approach, the questions addressed in this Chapter are as follows:

- i) *What are the desired policy goals—what defines demonstrable corporate social and environmental responsiveness from the perspectives of the broad stakeholder community?*
- ii) *What are the unique characteristics of the problem at hand—what is the strategic context, i.e. the internal strengths and weaknesses of the upstream petroleum industry, and the threats and opportunities posed by its external operating environment?*

- iii) *Who are the potential regulatory participants and policy instruments—who has influence over industry performance and how can that influence be applied to achieve the criteria that define responsive regulation?*
- iv) *What are the opportunities for consultation and public participation—what role can the community play?*

These questions are addressed in Sections 7.2, 7.3, 7.4 and 7.5, respectively. Section 7.6 presents the conclusions of this Chapter.

## **7.2 WHAT IS THE GOAL?**

As discussed in Chapter 1, the World Business Council for Sustainable Development (WBCSD), in association with the Thailand Business Council for Sustainable Development (TBCSD) and the Thailand Environment Institute (TEI), engaged in a stakeholder dialogue program in 1999. The purpose of this program was to frame the Thai debate on corporate social and environmental responsibility (CSER), and identify ways in which industry, government and community groups could work together. The program consisted of interviews with 15 Thai opinion leaders from the business and non-business community, and a full day workshop with approximately 25 local experts from various fields including business, media, government and NGOs (WBCSD, 1999b).

An outcome of this stakeholder dialogue was a definition of CSER, as the sum of the following principles (WBCSD, 1999b):

- i) the continuing or increasing commitment by business to behave ethically and contribute to economic development;
- ii) improving the quality of life of business' workforce and their families as well as of the local community and society at large;
- iii) prevention and mitigation of impacts on the natural and social environment;
- iv) demonstrable transparency and protection of consumer interests;
- v) improvement of the public's attitudes towards the environment through education;
- vi) being good corporate citizens; and
- vii) demonstrable good governance.

Responsive regulation aims to provide a judicious mix of persuasion and punishment with which to harness the virtue within organisations. For the purpose of this discussion,

the goal of responsive regulation is therefore defined as the provision of a regulatory framework in which industry adherence to the abovementioned principles of CSER is encouraged.

### 7.3 WHAT IS THE STRATEGIC CONTEXT?

Development of an appropriate responsive regulatory model relies upon an understanding of the strategic context in which the upstream petroleum industry operates. As discussed in Chapter 2, the strategic context is the relationship between petroleum companies and their operating environment. The context is identified through the characteristic strengths and weaknesses of petroleum companies (internal factors), and the threats and opportunities posed by their operating environment (external factors).

The conceptual framework of corporate responsiveness developed in Chapter 2 (Figure 2-5), is used to frame this discussion. The expectations and influence of government and the community may be viewed as the 'external factors', that are expressed as stakeholder claims. Corporate responses to those stakeholder claims are defined by managerial perception of saliency, which is influenced by 'moderating' and 'mediating' factors (collectively referred to as the 'internal factors'). The following SWOT (strengths, weaknesses, opportunities and threats) analysis (presented in Tables 7-1 and 7-2) is framed using the 'moderating' and 'mediating' factors to represent the internal strengths and weaknesses of petroleum companies, and the 'external' factors to represent the threats and opportunities. This analysis draws upon the profile of the industry presented in Chapter 4, and the empirical information presented in Chapters 5 and 6.

**Table 7-1 Internal Strengths and Weaknesses of Upstream Petroleum Companies with Regard to Social and Environmental Performance**

Moderating and Mediating Factors	Strengths	Weaknesses
Leadership	Companies that have strong, visionary senior managers, committed to CSER and supported by their boards and shareholders, can be powerful agents of positive change, e.g. BP Amoco ARCO.	Companies with leaders that do not actively support/believe in CSER, and/or do not have the support of their shareholders will usually not proactively demonstrate CSER.
Corporate Culture	Companies whose cultures value social and environmental performance, and are open to constructive stakeholder engagement.	Companies whose cultures are closed and/or arrogant, and have a narrow definition of their stakeholders.

Moderating and Mediating Factors	Strengths	Weaknesses
Corporate Ethics	Companies that have an ethical approach to investment, development and operation of their business, and are concerning with maximising host community benefit and minimising harm to society and the environment.	Companies whose ethical approach is based on maximising opportunity for financial return with little regard for the cost borne by the host community and/or the environment.
Organisational Adaptability	Tends to be a strength in companies that are accustomed to operating in a range of geographic localities and/or are have relatively flat management structures that devolve responsibility to business line/country managers.	Often poorly-developed/constrained in companies with an entrenched groupthink culture, e.g. State-owned companies, and/or companies with multi-layered hierarchical organisational structures.
Capital Availability	Large companies and those with a portfolio of profitable producing assets are usually well equipped with internal and external sources of capital.	Constraints often apply to small companies and those that have marginal resources to develop/operate.
Human Resources Availability	Generally a strength in large companies that have in-house social and environmental experts, and/or have trained and supported line management staff with expertise in social and environmental issues management.	Limited resources in small companies and other companies that do not employ and support staff with expertise in social and environmental issues management.
Opportunities for improvement (Costs-Benefits)	Positive opportunities in companies that are financially stable and have leaders and owners committed to improvements in technology and management practices.	Limited opportunities in companies that have marginal resources to develop/operate, are capital-constrained, and/or lack leadership and owner support for CSER.
Technology	The industry has a technological culture and is strong in technology development skills. Large, financially secure companies, in particular, generally have access to 'green' technology. Opportunities exist to use this technology in developing new resources, and retro-fitting existing plant, provided that cost-benefit return can be demonstrated.	Limited opportunity to use 'green' technology on existing or proposed field developments if they are marginal in terms of cost-benefit.

**Table 7-2 Opportunities and Threats Posed to the Upstream Petroleum Industry's Social and Environmental Performance by External Factors**

External Factors	Opportunities	Threats
Market Behaviour	<p>Markets that reward use of 'green' production processes, and socially and environmentally responsible producers.</p> <p>Shareholders and financiers that favour 'green' production, and measure performance on 'triple bottom line' indicators.</p>	<p>Tight supply/demand market that selects cheapest commodity, and/or does not place a financial value on 'green' production.</p> <p>Shareholders and financiers that are focussed on maximising financial return/profit.</p>
Legal-Regulatory Framework	<p>Responsive regulatory framework that provides a transparent, 'even playing field', but allows flexibility to enable companies to choose fit-for-purpose management practices to achieve agreed performance targets.</p>	<p>Impractical prescriptive laws and regulations that cannot be realistically complied with, and/or inhibit innovation to achieve improvement in outcomes.</p> <p>Administrative frameworks that inhibit stakeholder access, leading to stakeholder frustration and outrage.</p>
Social Expectations	<p>Individual and public interest groups that are willing and equipped to broker agreements to work cooperatively or in collaboration with the petroleum industry for mutual gain.</p> <p>Educated communities that are willing to take a role in bi-partite and tri-partite policy formulation and industry supervisory committees.</p>	<p>Host community that does not realise/experience net community benefits from petroleum production.</p> <p>Impaired empowerment of the public in some political arenas.</p> <p>Political agendas that oppose the industry, and access to resources.</p>

Using this conceptual framework to define the determinants of a company's responsiveness strategy, it can be seen that corporate responsiveness will be highly dependent upon the way the company managers perceive the interaction between key external and internal factors, as demonstrated in Chapter 6.

The SWOT profile highlights that there are both positive and negative characteristics associated with the internal and external influences on the behaviour of petroleum company managers, regulators and the community. As indicated in Table 7-1, the petroleum industry has many internal strengths to draw upon to develop leading social

and environmental management policies and practices. Given the dynamic character of their business, petroleum companies have developed a strong culture of adaptability, innovation and organisation, and typically employ well-educated, technically skilled staff. Where these strengths are applied, they can lead to the types of progressive social and environmental management practices that are now demonstrated by corporations like BP Amoco ARCO. However, not all companies have the same capital and staff resources to work with, or the same high public profile to protect, and therefore the full spectrum of performance, from good to poor, is still evident across the industry. Left alone, the poor performers will likely continue to operate with minimal regard for social and environmental issues, and focus on maximising financial returns.

For the purposes of defining a responsive regulatory model, the potential for improved social and environmental management practices lies with the strengths and opportunities, while the weaknesses and threats need to be addressed to remove or reduce impediments to improvement.

#### **7.4 WHO ARE THE REGULATORY PARTICIPANTS?**

In order to select the optimal avenues through which to apply incentives to companies to improve their social and environmental performance, their dependencies need to be clearly identified and targeted. These dependencies help to identify the potential regulators and their policy instruments.

As discussed in Chapter 4, all petroleum companies whether state- or publicly owned have common operating requirements, namely project finance (for exploration, development and production), access to petroleum resources (through government administered licensing schemes), and markets for their products. The key opportunities for applying pressure to the companies therefore lie in:

- i) Ethical, social and environmental performance screening by investors (lending institutions, stockmarkets, governments, joint venture partners);
- ii) Selective buying policies by the market/customers;
- iii) Peer pressure from within the industry via industry associations to adhere to performance standards;
- iv) Definition and enforcement of regulatory instruments by governments; and
- v) Public scrutiny through community right to know schemes, international management system standards and corporate reporting mechanisms.

The opportunities for use of these mechanisms in a responsive regulatory model are qualitatively evaluated in the following sections, using indicators of responsive regulation. As discussed in Chapter 1, responsive regulation is defined in practical terms according to its suitability to simultaneously satisfy the following indicators or criteria: *effectiveness* (contributing to improving the environment); *efficiency* (improving the environment at the minimum cost); *equity* (showing fairness in the burden sharing among players); and *political acceptability* (demonstrating liberty, transparency and accountability).

#### 7.4.1 Investor Screening and Performance Standards

Although petroleum companies vary considerably with respect to origin, size, structure, strategy, management, innovation, flexibility, and performance, their behaviour is primarily driven by two objectives: (i) high profits and growth, and (ii) the stability and long-term survival of the company. Both require maintenance of investor confidence and a steady supply of operating capital. There are essentially three sources of investment capital for petroleum companies: owner and joint venture partner capital; lending institutions; and the stockmarket (shareholders).

##### *Owners and Joint Venturers*

Exploration and production activities are capital-intensive, and in the case of exploration, may produce no investment returns. Hence, petroleum companies usually seek to share the risks and investments with other partners by entering into a legally-binding joint operating agreements. However, by entering into these agreements, joint venture participants place their corporations' assets, earnings and staff at risk, as well as incurring liability risk for their actions and those of third parties. In the case of the larger, high profile companies, their public image and reputation are also put at risk.

To reduce their risk profile, some petroleum companies prescribe social and environmental management performance standards for the operator of the joint venture businesses in which they participate. As described in Chapter 4, this can be an influential self-regulatory mechanism, as the companies involved have a vested interest in enforcing the application of those standards. However, the application of this tool is self-limiting, in the sense that joint venturers usually screen their partners on the basis of investment risk, and tend to select partners that are like-minded. Consequently, those companies that see the benefits of demonstrating socially and environmentally responsible behaviour are unlikely to partner with recalcitrants.

The exceptions will be those situations, like production sharing contracts, where companies are obliged to partner with the local state-owned enterprises in order to gain access to resources. In these cases, the companies may have little power to require



standards of performance in excess of the basic requirements, because expenditure approval is controlled by the state-owned enterprises, who may not be as sensitive to reputation damage as public companies (as demonstrated in Chapter 6).

In summary, for those companies that are already on a path towards improvement, enforcement of socially and environmentally responsible joint venture operating standards will assist them to perform according to their espoused policies. However, this mechanism is unlikely to directly influence the recalcitrants, unless the latter are publicly compared with the better performers, and are discriminated against by third parties on the basis of that comparison.

Therefore, while this regulatory mechanism demonstrates efficiency and equity, and some degree of political acceptability, it is limited in effectiveness to a selective portion of the industry.

### *Stock Exchanges and Shareholders*

Many petroleum companies are publicly listed on stock exchanges and are owned by, and financially accountable to, some mix of private and institutional investors. In practice, company managers have some freedom to sacrifice profits in the interests of non-shareholder groups, but they are nevertheless discouraged from doing so by the antagonistic market setting in which they operate. These companies often complain that investors are short-termist, and therefore they place management under undue pressure to produce dividends, at the expense of reinvestment in technological improvements, research, staff training and social and environmental management. A belief that the market demands short-term returns prompts companies to avoid capital expenditure that would arguably enhance the company's social and environmental performance and reputation, and be beneficial to the company in the long term.

This concern about the market for control assumes that shareholders' decisions to buy and sell shares are influenced purely by the expected financial return. However, the behaviour of some shareholders, especially ethical investment bodies, may be affected by other factors, such as ethical and philanthropic business practices. As discussed in Chapter 4, a new trend of social and environmental shareholder activism and ethical investment funds appears to be modifying the nature of shareholder expectations of corporate performance in some sectors of the investment market. These investors still only constitute a small portion (5-10%) of investors, but in time are expected to apply more influence to the marketplace. By way of example, the Dow Jones Sustainability Group Index, and a screened investment fund (the Australian Eco Share Fund) recently launched by Westpac Investment Management (Mather, 2000), indicate that the

mainstream financial markets in the Asian region are now seeing a viable business emerging in assigning CSER ratings to companies.

This market mechanism shows potential to positively influence company behaviour, so long as the socially and environmentally responsible companies are able to return profits comparable with or better than those of other companies (Feldman *et al.*, 1997; Mather, 2000). As discussed in Chapter 4, the stockmarket is a mechanism that aligns management conduct with shareholder preferences, and it is still reasonable to assume that the majority of shareholders are motivated more or less exclusively by financial concerns. The decisions of ethical investors to sell shares in less socially and environmentally responsible companies, in favour of more responsible companies, may be counter-balanced by the decisions of others to buy these shares that may now be perceived as bargains. Similarly, where ethical investors retain or acquire shares in a company that announces an ethically attractive, but profit-reducing policy, the result is likely to be outweighed by decisions on the part of other shareholders to sell.

The other regulatory instrument that is offered through this avenue is stock exchange listing rules. Many stock exchanges have now established rules requiring listed companies to make annual public disclosures of their environmental liabilities. Failure to disclose, and falsified returns can result in de-listing. This mechanism has been enforced in the US and Australia, for example, and extends to disclosure of all of the listed corporations domestic and international business interests.

Shareholder and stock exchange screening are both regulatory mechanisms that satisfy the criteria of equity, political acceptability and efficiency. However, they are currently limited in their effectiveness across the industry, as they do not apply to all listed companies, and are not applicable to those companies that are wholly privately or state-owned.

### *Lending Institutions*

Lending institutions, such as multilateral banks, are major sources of project finance for the petroleum industry, especially for projects in developing countries, where there may be a lack of local investment funds. The banks are becoming a significant source of pressure on industry performance, as they in turn are subject to scrutiny by their owners (investors and governments). There have been some notable, high-profile controversies over bank-funded projects associated with adverse environmental and social impacts, such as the hydro-electric dams in Laos and China, and mines in Indonesia and Papua New Guinea. As a consequence, over the last decade or so, international funding institutions, like The World Bank, the Asian Development Bank, and the US-based Export-Import Bank (EXIM) have been driven by political forces to take a more proactive stance in screening projects on social and environmental considerations.

Recently, the investment practices of the Australian Government's export financier (the Export Finance Investment Corporation, EFIC) have also been subject to strong criticism by the NGOs, the Mineral Policy Institute and AID/WATCH (MPI and AID/WATCH, 1999).

The banks literally hold the purse strings and therefore have considerable power over their borrowers. Of all of the financier-based regulatory mechanisms discussed above, this mechanism offers the greatest relative potential for satisfying the criteria of effectiveness, efficiency, equity and political acceptability. This is particularly so, if banks are themselves compelled by stakeholders to implement ethical lending criteria.

#### **7.4.2 Market Influences**

The opportunities for applying green buyer pressures to the upstream petroleum sector are somewhat limited. The primary purchaser of crude oil is the downstream sector, rather than the public consumer. This market is strongly cost driven, and does not generally discriminate on the basis of how 'green' the crude oil product is. Even when multilateral sanctions are applied to oil producing countries, these sanctions have usually been applied for political reasons, not on the basis of environmental considerations, and therefore are not linked to company-level management practices.

The downstream sector (refineries and petrochemical manufacturers) obtains its crude oil products from numerous sources, not just its own corporation's upstream petroleum producers. Therefore, it is difficult for public consumers to differentiate between petroleum products in terms of their knowledge of the product origin, and the environmental and social conditions under which it was produced.

Although public consumer boycotts were applied to Exxon and Shell fuel retail outlets, respectively, during the *Exxon Valdez* and *Brent Spar* controversies, this type of action is exceptional, and limited in its influence to the high profile companies. Many of the smaller upstream production companies do not have associated downstream or retail companies, and therefore do not have a market brandname and are not known to the public consumers.

Macrotrends in energy markets, such as a 'green' push towards more sustainable energy sources like solar power, are also unlikely to have a significant impact on the upstream petroleum industry in the foreseeable future. Despite initiatives of large corporations like BP Amoco ARCO and Royal Dutch/Shell to invest in solar power technology, these companies and the rest of the industry continue to invest heavily in the petroleum exploration and production sector, and the currently buoyant world oil price indicates a strong demand for oil-based products.

Buoyant oil prices also do not necessarily encourage petroleum company expenditure on social and environmental management initiatives. While a decline in commodity prices will prompt managers to consider expenditure reductions or withdrawal from the market, the converse does not apply. In this dynamic market, a rise in oil and gas commodity prices is often viewed as a short-term cyclical trend that should be optimised in terms of profit, and therefore will not necessarily lead to a loosening of the purse strings in favour of environmental management expenditure. The extreme global oil price fluctuations that have occurred during the course of this study (1996-2000) are proof of this volatility.

Perhaps the most promising opportunity for the use of market forces is in the bidding processes for access to exploration and production acreage. As low production cost petroleum resources become scarcer, there is greater competition between companies to win the right from host governments to exploit cost-effective resources. Discerning governments can use this demand to impose tighter licence conditions on social and environmental performance by explorers and producers, and/or discriminate on the basis of the cleaner production technologies offered by the bidders.

Some companies with access to cleaner production technologies perceive that they have a competitive advantage relative to other petroleum companies. They advertise their superior performance in the community, and lobby regulators to rule that their technology should set the minimum performance benchmark. However, this leveraging mechanism is limited in its application across the production sector, being most applicable to the large companies that are already focussed on capitalising on the existence of environment-enhancing economic incentives. Major companies are often more sensitive than smaller independents to the need to establish and maintain access to resources, particularly if a potential field is geographically located within their strategic area of focus, and could therefore be linked into their existing supply network.

By comparison, small firms are often short-term focussed, partly because they are dependent upon the spot-market for sale of their products. This part of the market is notoriously unstable, being very vulnerable to the raiding, dumping, and predatory pricing practices of larger firms and cartels. Consequently, the flow of revenue to small firms is very unstable, and affects their ability to both develop new projects and make long-term investments in environmental quality. Inevitably, they are focussed on minimising the costs of production, and therefore often seek out opportunities in less discriminating jurisdictions, or in marginal fields where they do not face competition from the major companies.

Market preferences therefore also offer limited opportunities for improving the behaviour of the laggard and low-profile companies. The larger companies that have a market-recognised brandname are most susceptible to consumer pressure, and

consequently many of these companies have already recognised the need to protect that reputation.

It is concluded that this regulatory mechanism is efficient and politically acceptable, but is not particularly effective (limited in application) or equitable (the cost of industry reputation management is borne by the brandname companies).

### 7.4.3 Industry Standards

The petroleum industry is what Rees (1994) refers to as a 'community of shared fate', that is, the poor performance of one or more companies may adversely affect the interests of the entire industry. The major companies, with high profile brandnames have much at stake in this arena, and therefore tend to take the lead in establishing industry associations to set performance standards and mobilise peer pressure to encourage other companies to adhere to those standards.

Many of the industry associations have developed codes of practice and guidelines for their members as self-regulatory mechanisms to set industry performance standards. For example, the Australian Petroleum Production and Exploration Association (APPEA) has "*self regulation through the formulation and acceptance of codes of practice in key areas of business activity*" as one of its Key Objectives (APPEA, 1996, p. 4).

In many cases, these codes and guidelines have been developed to fill a perceived gap in legislative or regulatory control of particular activities, given that regulatory control often lags well behind issue emergence (Stone, 1996). For example, following the highly publicised oil spill from the *Exxon Valdez* tanker, the American Petroleum Institute (API) adopted a set of environmental principles for implementation by its member companies. These principles urge member companies to educate their stakeholders about environmental and safety issues, and to maintain good public relations. They also urge the industry to participate in regulatory processes to create responsible laws and standards for safeguarding the community, workplace and environment (API, 1990).

The industry bodies commonly lobby governments for the right to self-regulate using their established codes of practice:

*"Prescriptive regulations in comparison with 'industry inspired solutions' are often less effective and more costly in achieving their objectives. In many areas the petroleum industry has a demonstrated record of self-regulation. We implement world best practice and are often ahead of the regulators"* (Schubert, 1992, p. 47).

However, the process of developing these codes and guidelines is typically a voluntary, consensus-based process. So, while third parties, such as NGOs, may be consulted, the

final product will reflect what the industry is prepared to accept. The 'industry' in this context may represent a cross-section of small and large companies, with strongly differing views, so that the agreed code often reflects some form of compromised position. Alternatively, companies less interested in CSER, may opt out the code formulation process, and therefore while the final code may reflect the views of more responsible companies, the other factions of the industry will not endorse it because they were not party to the agreement.

Another weakness in this self-regulatory approach is the lack of an enforcement mechanism for these codes. Typically, while companies may become signatories to these codes, rarely do petroleum industry associations audit company compliance with the codes, or expel members that do not comply with the codes. For example, neither the APPEA Code of Environmental Practice nor the Petroleum Institute of Thailand's Environmental Code of Practice are audited or enforced. In those cases where there is a third party audit programme in place, as for the Australian Minerals Council Code for Environmental Management, the maximum penalty for poor compliance is public shaming. Hence, because endorsement of the codes is usually not mandatory, only those companies that genuinely intend to comply with code will participate in the program. Third party verification of compliance is therefore commonly viewed from the outside as promotional propaganda.

As observed by Fuchs and Mazmanian (1998, p. 199),

*"... business-business cooperation does not necessarily lead to positive changes in environmental performance. Some scholars claim that the standards and principles developed by industry are just cosmetic changes in an attempt to pre-empt future government regulation (Chatterjee and Finger, 1994). After all, these standards actually do not include specific performance or emission standards and in the view of Clapp (1997) provide little incentive to achieve environmental performance beyond the level of compliance or put effort into developing and adopting cleaner technology."*

The potential power of codes as a regulatory instrument is often compromised by diluted performance requirements, and the lack of industry will to enforce their implementation or punish non-conformers. Unlike the chemical industry's Responsible Care programme, there is currently no widely applied code of practice for the upstream petroleum industry that drives continuous improvement or provides for public participation and scrutiny.

Therefore, while these industry codes and guidelines are positive initiatives, and potentially are an equitable and efficient regulatory mechanism, their effectiveness and political acceptance may only be assured if adherence is made mandatory through endorsement in legislation.

#### 7.4.4 Regulatory Instruments

The traditional form of industry regulation is via legal statutes and regulations, administered by government regulatory agencies. Petroleum companies rely upon licenses issued by governments to explore for, produce and market petroleum; to establish and operate supporting infrastructure and services; and to dispose of their waste products.

A common message put forward in the Thai stakeholder dialogue on CSER was that “*strict governmental enforcement of the law (particularly environmental regulation) is crucial for improvement*” (WBCSD, 1999b). Exponents of direct regulation (command and control<sup>1</sup>) espouse the importance of having strong legal and regulatory measures to counteract market forces, and to ensure that companies perform to meet social and expectations—laws are society’s codification of acceptable and unacceptable behaviour. They argue that without the pressure of this type of legal framework, companies would not make progress quickly enough to meet the expectations of society. The underlying concern is that while there are many companies that will take action voluntarily, not all will, and it is the laggards that need to be disciplined by direct regulation.

Anecdotal evidence presented in Chapters 4, 5 and 6 indicates that if the host country does not have a strong regulatory regime, petroleum companies will pay less attention to expenditure on regulatory compliance, in favour of other operating demands. This particularly so if company managers are not concerned that the governments will actually enforce environmental legislation. The possible costs resulting from prosecution or reputation damage for non-compliance may be dismissed as problems for another day, based on a belief that they can be negotiated through captive regulators, or through political connections (in the case of state-owned petroleum companies).

There is compelling empirical evidence from other sources to suggest that industry typically requires some form of regulatory oversight to ensure that minimum performance standards are maintained (Haines, 1997; Jackall, 1988). There are also recognised links between socially and environmentally responsible behaviour by companies and the existence of a sound regulatory framework (Arscott, 1989; Gunningham, 1994; Moser and Tsai, 1998). For example, many of the technological research and development initiatives of the US petroleum industry over the last three decades, have been driven by strong environmental laws and enforcement in the US, in particular Federal legislation pertaining to air and water emissions (the *Clean Air Act* and the *Clean Water Act*). Arscott (1989) reported that these regulatory drivers

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<sup>1</sup> The essence of “command and control” regulation is that legislatures proscribe certain behaviour and set up a regulatory agency to monitor and enforce compliance with the legal standards (Gunningham, 1998a).

prompted the upstream petroleum industry to develop new methods for disposal of drilling fluids, produced water and other oilfield wastes to protect human health and the environment. The Federal *Endangered Species Act* 1973 also required the industry to pay more attention to protection of wildlife and fishery resources and develop co-operative agreements between the oil and gas industry, the fishing industry, indigenous peoples, government agencies and environmental groups.

Similarly, a study of corporate environmental responsibility within the oil and gas sector in Latin America (Moser, 1998) identified strong legislation and enforcement as the most important factors in influencing environmentally responsible behaviour. (Other important factors included obligations to fully implement corporate internal policies, and pressure from NGOs and the media).

In their study of multinational petroleum and chemical companies operating in Latin America and Greater China, Moser and Tsai (1998) observed the best overall environmental behaviour in those cases where the companies had recently established facilities and where there was strong and enforced local legislation. Under such circumstances, not only were the companies able to fully apply their own internal policies, such as the application of contemporary environmental technologies, but the presence of strong local legislation also provided an external incentive to implement internal policies to their fullest. A number of environmental managers interviewed by Moser and Tsai reportedly emphasised the importance of strong external legislation for the implementation of internal environmental policies.

Command and control regulation has the advantage of being a dependable regulatory instrument, but also has a number of disadvantages. Critics express concerns that direct regulation tends to be overly prescriptive and stifles creativity and long-term innovation (Hampson, 1993). The US has established a reputation for prescriptive direct regulation, strong regulatory enforcement, and a penchant for litigation. However, this model has not won favour because it is often perceived that companies become so obsessed with compliance and staying out of court, that they are discouraged from showing any initiative to try any new innovative approaches. Furthermore, the litigious nature of the business environment means that great expense is incurred fighting court battles, which might otherwise be more usefully applied to social or environmental protection programmes.

The direct approach to regulation adopted by many developed and developing countries, has typically been narrowly prescriptive and expensive to implement and administer. In Thailand, the direct regulation approach appears to be failing because it was adopted without an adequate supporting framework. Legislation, regulations, and standards have often been poorly designed for the conditions in which they are to operate. Furthermore, the regulatory agencies often lack the necessary political support commitment from



government to make the system work effectively. Regulators are commonly inadequately equipped to effectively implement and enforce regulatory requirements, while senior bureaucrats and politicians are often engaged in turf wars that preclude effective co-ordination and cooperation.

Therefore, while the Thai stakeholder dialogue on CSER identified a need for strict environmental law enforcement, it is questionable whether that approach will yield the desired outcomes, if the law-making and administrative processes outlined in Chapters 5 and 6 prevail. Enforcement of a flawed system is unlikely to meet the criteria of effectiveness, efficiency, equity or political acceptability.

#### **7.4.5 Management System Standards and Corporate Reporting**

Petroleum companies have traditionally assumed that their licence to operate was primarily contingent upon financial backing and government regulatory approvals. They often have not perceived a need to explain their management strategies to other stakeholders, or justify their actions in regard to issues like investment in countries with controversial political regimes. However, advocates of corporate social and environmental responsibility suggest that petroleum companies should turn their attention to acquiring their legitimacy (licence to operate) not only from regulators, but also directly from the public (Bray, 1997; Grolin, 1998).

In recognition of these external pressures, the major companies, in particular, have started to integrate environmental issues in their overall business management (Estrada *et al.*, 1997). Some large petroleum companies, like BP Amoco ARCO and Royal Dutch/Shell have implemented corporate social and environmental reporting systems. Others have chosen to start their greening process by implementing environmental management systems (e.g. to comply with the ISO 14001 standard). For example, in April 1997, the Thai company, PTTEP became the first petroleum exploration and production company in Thailand and the South-East Asian region to achieve ISO 14001 certification for its environmental management system (EMS). A company spokesperson stated that the impetus for this voluntary initiative was to prepare the company “for an ever increasing environment conscious world”, “for increasingly stringent regulations” and “to take on a bigger role in the E & P industry” (Dr Praya Phinyawat, PTTEP President, 1998).

*“PTTEP has voluntarily taken on two of the most demanding international HSE standards through the adoption of the ISO 14001 and ISRS (International Safety Rating System) ... In doing so, the company is committed to pollution prevention, and risk minimisation, with continuous improvement program. The company also aims to cooperate with other oil companies, other industries, the authorities, the universities and other non-governmental organisations (NGOs) in effort to protect our environment. ...*

*We believe that [sic] oil and gas industry does not have to equate with polluted, dirty products or dangerous and environment endangering activities. ... The industry needs to be more aware of and to be responsive to the people's and community's perceptions and concerns" (Phinyawat, 1998).*

These self-regulatory initiatives are positive and provide an opportunity for the broader stakeholder community to gain a better understanding of the management practices of these companies. However, alone, they do not provide a mechanism for regulators or the public to apply any pressure to set the pace or scope of companies' continuous improvement programs. Like industry codes of practice, their value is limited by the rules of voluntarism. Those companies that recognise the importance of responsible management practices will implement self-regulatory initiatives, but on their terms. While those companies that are not interested or committed will not adopt such systems.

Therefore, company certification to the ISO 14001 EMS standard, and other initiatives like Corporate Environmental Reports are not particularly effective as industry-wide self-regulatory mechanisms, unless these are mandated by regulators, and company performance is reported to, and scrutinised by the community. This point was aptly made by Mechai Viravaidya speaking in his capacity as Chairman of the PTTEP Board of Directors<sup>2</sup>,

*"[W]e gather for such meetings and discuss issues and programs pertaining to environment, health and safety and produce a lot of self-serving documents or brochures that may inform the public, but it will not change our behaviour or performance in this industry. It is only good knowledge for an active public. Therefore, if we want to improve ourselves, we need to improve the public's knowledge, attitude and behaviour. ... The best thing for EHS [environment, health and safety] is a well informed public. They will look at us in a transparent manner and keep us on our toes until the day we do improve. .... They will be the ones who judge us in the future" (Viravaidya, 1998).*

#### 7.4.6 Synthesis

The proponents who support the case for self-regulation and a role for voluntarism argue that businesses are, if not automatically good citizens, at least prepared to become so, if

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<sup>2</sup> It should be noted that such candor is not typical of industry spokespersons. Mechai Viravaidya is a prominent Thai social activist and environmentalist. In 1974 he established one of the first NGOs (the Population and Community Development Association) to become involved with community development, family planning and primary health care (Bamber, 1997). During the 1992 Anand-led interim governments, he was appointed as Minister to the Office of the Prime Minister, where he was known to have worked strenuously to strengthen NGOs and increase their participation in government decision-making processes (Baker, 1995).

they are given encouragement (Maltby, 1997). However, the preceding discussions suggest that neither the investor nor the commodity markets' appreciation of CSER are yet (and may never be) developed sufficiently to drive petroleum company behaviour towards philanthropic interests. Without other incentives, the industry's own improvement initiatives are tempered by the need to be mindful of market economics and stay cost-competitive. Therefore, none of the market or industry-initiated performance drivers satisfy the criteria of 'responsive regulation' in their own right. Furthermore, while collectively they address most of the criteria, they are limited in their effectiveness to influence the entire spectrum of upstream petroleum companies.

Clearly, there is a continuing need for a government regulatory presence to define industry regulatory tools, and periodically review those tools to drive continuous improvement. However, as demonstrated in Chapter 5, the power and benefit provided by regulators is dependent upon the calibre of the system in which they operate. The answer, therefore, is not simply to enforce the existing statutes and regulations, or to continue to develop them in the same manner as in the past. Ineffectual regulatory systems do not operate in the interests of the regulators, the industry or the broader stakeholder community.

There are many regulatory options potentially available to regulators to apply either as standalone mechanisms, or as a 'toolbox'. In addition to the approaches described in this Chapter, there is a host of other economic instruments, such as property-rights, performance binds, deposit-refund systems, community-right-to know schemes (like the US Toxic Release Inventory) that are potentially available. However, for reasons explained above, the mechanisms that are used must be suited to the context in which they are to be applied. Based on evidence presented in Chapters 5 and 6, it is highly questionable whether Thailand's bureaucracy and administrative structure are yet ready to embrace and effectively apply these approaches. There is little value in introducing a new system that will not be adequately supported, both financially and politically. Instead, it is suggested that effort would initially be better directed to empowering the community, through education and NGO support, to take a more balanced role in scrutinising the day-to-day decision-making processes of government, such as the environmental impact assessment process, for example.

As discussed in Chapter 5, some government ministries in Thailand have now recognised the need to create a role for the private sector (including industry) and the community, to play a more direct involvement in environmental management (OEPP, 1997; Tridech, 1998). However, there needs to be some agreement amongst these parties about the priorities for action, and their respective roles and responsibilities in this cooperative effort.

An outcome of the WBCSD-facilitated stakeholder dialogue in Thailand was some definition of the rights and responsibilities of business, government, and society in making business more sustainable through market mechanisms (WBCSD, 1999b). These are listed in Chapter 1 and summarised as follows:

- i) The government's key role and responsibility is to be the regulator and enforcer, and to create reliable regulatory framework conditions that reward good company behaviour.
- ii) The role of business is to strive to achieve legal compliance, as well as to implement voluntary self-regulatory initiatives, such as international environmental standards (e.g. ISO 14000 EMS series), and codes of practice.
- iii) The main role of civil society is to act as a watchdog and pressure government to enforce regulation and "modernise" infrastructure, pressure business to behave responsibly, increase environmental and social awareness within civil, business and communities and governmental institutions, and raise consumer demands for "greener" products and for buying responsibility.

The preceding sections have discussed at some length the contextual limitations that apply to petroleum companies and regulators in jurisdictions like Thailand. Repeatedly, within these discussions opportunities have appeared for greater harnessing of community involvement to scrutinise the performance of industry and the regulators and apply investment screening and political pressure to drive improvements. The following discussion therefore focuses on the opportunities to enhance the role of public participation.

## **7.5 WHAT ARE THE OPPORTUNITIES FOR PUBLIC PARTICIPATION?**

### **7.5.1 Strategic Context**

In the past, whether for lack of democracy or because of an overly technocratic orientation, South-East Asian governments have often been reluctant to encourage public involvement in environmental affairs (O'Connor, 1994). Now, there is evidence emerging that increasingly educated and civil-minded populations are applying pressure to these governments and the industry they foster, to improve their environmental management. They are actively seeking greater accountability in environmental management, both in local and regional contexts (Hirsch, 1995).

Palmlund (1997) suggests that the energy for change in Thailand come from citizens who are asking government to meet their demands for improved environmental management.

*“In so far as there is a change strategy, it is to encourage citizens to raise concerns at the local level and to press for changes in decision processes to realise improved and environmentally sustainable habitats. The aim is to secure a participatory citizen voice in these processes, forming partnerships for implementation, securing transparency and accountability for official actions, pressing for devolution where local action is constrained through lack of authority and for legislation where necessary to support these changes”* (Palmlund, 1997, p. 109).

The power of citizen opinion has been shown to be influential in achieving reform in Thailand when governments sense that their political power base is vulnerable. As observed by Palmlund (1997), recent Thai governments, eager to retain public support, have been sensitive to criticism from citizens and international powerbrokers, and have often reacted with changes in government policy. A significant example is the 1997 enactment of a new national constitution, in response to public demands for constitutional reform. The new constitution was formulated with extensive public input and is progressive in its provisions for community involvement in government decision-making and citizen standing to enforce accountability by state agencies and enterprises. This constitution has provided a legal framework through which the Thai public may now play a legitimate role both as a watchdog on business and regulator performance, and as a collaborator to develop new management approaches.

### **7.5.2 Watchdog Role**

One of the roles of a watchdog is to set standards for accountability and performance. In those societies where corruption within government is endemic, the community is concerned about the calibre of the regulators. The regulators typically have their own agenda, driven from within their own agencies, as well as from pressure from politicians, and therefore cannot be relied upon to represent the broad community's interests. In Thailand, Mr Panas Tassaneyannond, Director of the Environmental Law Centre in Thailand made the following observation:

*“We are unlucky to have a government that is not concerned about the environment. It struggles to keep its power, rather than do the right thing”* (Tassaneyannond cited by Janchitfah, 1998).

As discussed in Chapter 4, many of the governments in South-East Asia are actively encouraging investment by the petroleum exploration and production industry, which is seen as a much-needed source of foreign investment and a potential source of energy self-sufficiency and possibly significant future export earnings. However, development of the upstream petroleum sector in South-East Asia is occurring in an environment in which industrial development has commonly been allowed (by governments) to take place at the expense of the natural environment and local community interests. Most of these countries are heavily reliant upon their primary production sectors to provide

livelihoods for their indigenous populations. Population growth and development demands are rapidly increasing and placing enormous pressures on regional terrestrial, coastal and marine resources, e.g. fishing, mining, agriculture, forestry, etc.

The quality and sustainability of those resources is now subject to greater scrutiny (OEPP, 1997; Tridech, 1998). One example is that of fisheries (a traditional primary source of protein), which have been adversely affected by water pollution from domestic and industrial effluent (Dixon *et al.*, 1994). The Thai Government has publicly directed concerns about development pressures on the coastal and marine environment at the petroleum industry (Tridech, 1998).

Every aspect of the petroleum industry involves contact with the environment. Pollution can emanate from several sources including oil spills in drilling operations or during transportation, dumping of chemical drilling fluids and contaminated drill cuttings into the sea during offshore operations, gaseous emissions from flaring, silting from land clearing and offshore infrastructure installation, to name just a few. These activities can have both local and regional impacts. Pollutants can cross international political boundaries via natural water flows and atmospheric motion. The petroleum industry is therefore perceived by sectors of the local and international community to have contributed to the environmental problems now faced by the region. The upstream sector is also sometimes perceived as a competitor by other natural resource-based industries, in the bid to access areas that have multiple use potential. The local community is therefore often wary about the motives and benefits of this industry sector.

As a consequence, the petroleum industry is often subject to public suspicion and opposition when it embarks upon new projects. Achieving and maintaining legitimacy to operate in this region is a major challenge facing the industry, particularly for the multinational companies, which have a relatively high public profile, not only in their host countries, but also in their home countries and in the international arena. Where once legitimacy of petroleum operations may have been inferred by host countries when they awarded exploration and production concessions or entered into production sharing contracts, increasing empowerment of communities has created more complex demands on achieving and maintaining legitimacy.

Petroleum companies and industry associations actively seek an opportunity to be involved in regulatory reform and institutional strengthening, as a means of achieving informed regulatory debate, and certainty and reasonableness in approval and licensing processes. From the petroleum industry perspective, it is important that decisions that affect areas of low prospectivity should include some flexibility to accommodate new information and understanding of resource potential, and new technology, and should not deny access irrevocably to particular interests (Wells, 1995; APPEA, 1997). These groups unashamedly lobby governments to design regulatory systems that will facilitate

the industry's business, as demonstrated by the following quote:

*"An important component of dialogue with government must be to entrench the principle of multiple land and marine use and to ensure that we continue to have access to prospective acreage. We must also ensure that at the time of commitment and approval of exploration expenditure, companies also have reasonable certainty of being able to develop any commercial discoveries. The upstream petroleum industry will find it increasingly difficult to attract exploration funds if there is significant doubt regarding approval to develop"* (Schubert, 1992, p. 47).

Supporters of industry involvement in government institutional strengthening and capacity building argue that such efforts accelerate the process of regulatory development, reduce uncertainty for industry, provide an opportunity for industry to make its preferences known in a constructive context, while personalising the regulatory system and demonstrating goodwill (James, 1998). For example, interviewees from multinational companies cited examples of company involvement in legislation development and agency staff training activities in developing countries, including Azerbaijan, Myanmar, Vietnam and Venezuela.

The industry argues that this approach is justifiable because reactive governments may quickly introduce legislation or regulations for the purpose of placating discontented citizens. The commercial repercussions of sudden government policy shifts can include increased political risk and environmental liabilities for industry, while also straining industry-regulator relations. The new controls that result from hasty political decisions may impose stricter performance requirements on industry, without heed to practicality or actual outcomes. The intended outcome will often therefore not be realised.

For example, the Thai Office of Environmental Policy and Planning (OEPP) and the National Environmental Board (NEB) are reportedly under intense pressure from some local academics and environmentalists over environmental issues associated with the petroleum industry. These concerns partly stem from the mercury disposal problem in the Gulf of Thailand and projects like the PTT *Yadana* gas pipeline. Industry interviewees suggested that the OEPP is being pressured to demonstrate that it is taking action by developing and enforcing more stringent environmental impact assessment (EIA) guidelines and pollution control and waste management standards. The upstream petroleum companies in Thailand are apparently concerned about this initiative, because past experience has demonstrated that Thai government ministries (especially MOSTE) have favoured command and control-based legislation, and such legislation has been developed without consulting the petroleum industry and sometimes without considering the practical implications of implementation. It is suggested that formulation of such reactive regulatory controls is unlikely to engender support from either regulators or industry, and therefore are destined to fail.

*“It is not necessary for all countries within the region to be identical in their approaches to HES issues, but there should be a compatibility of objectives, goals and targets from country to country” (Marcotte, 1998).*

Nevertheless, it is hardly surprising that the public does not consider these lobbying practices to be politically acceptable, because they are perceived to lack transparency and preclude an opportunity for other stakeholders to be involved in the process. There are concerns that the petroleum industry does not satisfactorily manage its social and environmental impacts, and yet legislation on environmental issues was, and continues to be, written in direct consultation with the very industry whose interests are at stake.

The issue of regulator capture is a particular concern. Critics assert that industry and government can become so aligned as to exclude the interests of local communities (Moser and Miller, 1997; Moser, 1998). Closer relations between regulators and the regulated in the pursuit of co-operation can encourage the evolution of regulator capture and corruption (Ayers and Braithwaite, 1992). As observed by Fuchs and Mazmanian (1998, p. 199),

*“We need to keep in mind, however, that it is only a small step from cooperation to capture. In consequence, cooperation between industry and government, or between industry and NGOs might actually lead to a weakening of regulations and a decrease in greening.”*

The relationship between petroleum companies and regulators is particularly controversial when the regulator is also the industry's facilitator, as is the case with many of the petroleum agencies. For example, Stone (1996) suggests that single client agencies, such as Australia's petroleum industry regulators, have come to identify with and serve the interests of the clients they regulate rather than the clients they serve. Similar criticism could be directed toward the Thai Department of Mineral Resources.

The National Committee review report on the *Yadana* gas pipeline project (discussed in Chapter 6) recommended that the Thai government improve laws related to the decision-making process for mega-projects, to provide for public participation prior to approval, and ready access to project information for the public and the media (Ridmontri, 1998b). The Committee Chairman, Anand Panyarachun, was reported to say:

*“This should be the last project of its kind to be approved despite the lack of transparency and proper environmental survey” (The Nation, 1998b).*

The editorial commentary on this situation made a strong plea for recognition of the need to build transparency and third party involvement into the process:



*"The lesson here is that the project sponsors—be it the PTT or any other state agency—should not be in charge of organising public hearings or paying for the environmental impact studies. Instead, another impartial body or mechanism should be set up to carry out these two vital tasks with transparency and accountability. Only then can a social consensus be achieved. The new Constitution has laid the groundwork for such impartiality. It now requires effective implementation. That is up to Premier Chuan Leekpai, who must capitalise on the gas pipeline issue and follow the committee's recommendations to change the laws governing how so-called "public interest" development projects are approved" (The Nation, 1998b).*

While these recommendations were widely welcomed by environmental reform lobbyists, the history of environmental law in Thailand indicates that the suggestions to improve the statutory process will not be acted upon quickly. Nevertheless, the evidence presented in Chapter 6 shows that elements of Thai society, supported by an influential free media, have demonstrated that they are prepared to speak out about social and environmental issues. They will openly challenge traditional grounds of industry legitimacy (scientific arguments and government approvals), and the performance of both state-owned and private companies and regulators. These challenges cause embarrassment for both the industry and regulators, and are easily given widespread national and international publicity through the Internet.

Interest groups contesting past projects in Thailand have made gains from strategic alliances with diverse stakeholders in which each social 'force' is able to optimise its influence. Villagers can speak in their 'own' voice at meetings and demonstrations, while newspapers expose abuses, dissident academics speak credibly in scientific or economic language against corporate consultants, students take the political offensive, bureaucrats fight turf wars within ministries, and *phuu yai* ('big people') approach other *phuu yai* at the top levels. Meanwhile, non-governmental organisations arrange forums at which the diverse members of alliances learn how to co-ordinate with each other and use one another's' strengths (Lohmann, 1995). For example, Baker (1995) observed that local grassroots organisations are usually led by local people who are almost certainly not part of the establishment and commonly do not have personal relationships with policy makers. They often need the support of more influential partners in order to gain power.

This collaborative approach was evident in the *Yadana* pipeline case study, where the project opponents sought the support of respected academics to push for a public review of the project's approval process. PTT was impelled to change its perception of the stakeholder claims in February 1998, when these stakeholders acquired the attribute of 'power' through the support of the National Committee's report findings. Prior to that, the local grassroots organisations had lacked access to decision-makers.

As a regulatory mechanism, therefore, scrutiny and contention by NGO-community-media coalitions can be highly influential, as demonstrated in Chapter 6, and *the Brent Spar* incident described in Chapter 1. However, it is a reactive mechanism that requires a great deal of energy on behalf of the participants. It is also often perceived as an antagonistic process that builds barriers against industry and regulators. Therefore, while it is a necessary and important role for the public to play in regard to driving improvement, there are equally beneficial roles for the public to participate in proactive problem-solving, through collaborative programmes with regulators and industry, as also demonstrated in Chapter 6.

### 7.5.3 Collaboration

The preceding sections have established that industry management of social and environmental issues would benefit from collaborative participation by regulators and stakeholders from the broader community. There are many potential opportunities for collaborative tripartite programs in Thailand and other South-East Asian countries. A positive start for Thailand might be the establishment of collaborative information gathering and dissemination programmes to foster informed decision-making. A concern, which has consistently arisen throughout this research, is the way in which information is gathered, disseminated and used in environmental policy formulation and decision-making. Information is key to all decision-making processes, but often its role and importance are often poorly understood. Public participation is also often impaired because the necessary information is not made available to stakeholders, for political or commercial reasons, or simply because the stakeholder's needs are not recognised or considered (Waddock and Boyle, 1995).

Furthermore, the judicial system is often not perceived by the public to serve their needs to achieve change, because of the entry costs involved and, in the Thai situation, the absence of a legal mechanism to set case law precedents.

From the petroleum industry perspective, there are concerns regarding how terms are set for data collection programmes. For example, interviewees reported that in the course of seeking permitting approvals for their projects, they have sometimes been asked by regulators to collect baseline or monitoring data that are peripheral to the project, but are relevant to other objectives of those regulatory agencies (or vocal stakeholders). Decision-makers that are not confident to work with uncertainty may require unreasonable volumes of information, necessitating comprehensive, lengthy and expensive data collection programs, rather than focussing on key issues and their management. As observed by Ritchie and Kingham (1997):

*"In short, any environmental monitoring programme in the late 1990s must take account, rightly or wrongly, of the weight of public opinion and attitudes whether real*

*or manipulated. ... The "good science" approach with embedded confidence limits has been overtaken by the external demand for unqualified assurances. As a consequence some monitoring effort must now be directed at particular types of problems, often species-led, which might be a diversion of limited resources but, in a world which is driven by information rather than knowledge, popular pressure cannot be ignored."*

In other cases, the intended use of the information is not carefully considered before information gathering is initiated. In such cases the information that is collected may be of little practical use, because its focus is inappropriate, or the information is supplied in a format that cannot be used (Pincerrato and Oliver, 1996). Lack of co-ordination leads to poor planning, and overlapping, repetitious and unco-ordinated data collection programmes that fail to address the important issue of identifying actual chronic and acute impacts of not only the petroleum industry's operations, but also those of other resource users. These databases are not adequate to answer the questions of stakeholders in regard to the nature of chronic, acute and cumulative impacts in spatial or temporal terms (Farrell and Yeates, 1992; Parry, 1995).

Chapters 4, 5 and 6 illustrate that there is a need to improve the community's understanding of the environmental impact of petroleum exploration and production activities, and for the public and NGOs to educate the petroleum companies about the social impacts of their activities on local communities. A better understanding of these impacts could then be used to design more responsive regulatory tools to address the issues in the local context, and move away from the existing command and control tools that are clearly not working.

Co-operation between industry and its external stakeholders to develop environmental standards and regulatory processes to encourage innovation, can increase stakeholders' understanding of present and future requirements in the business community (Boons, 1998). It can also increase the probability of buy-in and support from the business community to implement the standards and comply with the processes (Hastings, 1999).

Recognition of local decision-making protocols and the influence of cultural values and motives are important in the development of cooperative relationships with the community (Chen *et al.*, 1998; Doney *et al.*, 1998; Hastings, 1999)<sup>3</sup>.

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<sup>3</sup> In general terms, East Asians are often referred to as having a characteristically 'collectivist' culture, relative to the 'individualist' culture perceived to be associated with 'Western' societies (Lewis, 1996; Milner and Quilty, 1996; Naisbitt, 1997). Individualism is basically defined as placing emphasis on the individual and the individual's interests, whereas collectivism focuses on the collective rather than the individual good (Marshall, 1994). The distinctions are, however, relative to each other—both individualists and collectivists may have individual and collective goals, but they differ in the relative priority placed on them, that is, they may have different rationalities (Chen *et al.*, 1998).

In Asian cultures, decision making is influenced by a politics of inclusion, and complex questions are approached by broadening the circle of inquiry to include all points of view, and then seeking an arrangement that is good for the collective community (James, 1998). The social norms that characterise Thai society are appropriate for a collaborative, mutual gains approach toward problem solving. Given its tradition of allowing everyone to save face, Thai culture is by its nature very inclusive.

*“Thais typically want to include as many people as possible in the public process, and to do so in a way that minimises the possibility of conflict and confrontation”* (McDaniel *et al.*, 1998, p. 4).

As is evident in the Chapter 6 case studies, a key aspect in building stakeholder trust is the approach taken by industry and regulators to communicating with the community. A potential constraint to community acceptance of petroleum company initiatives is the perceived credibility deficit of both the industry and its regulators. In many societies, credibility and respect are accorded on the basis of hierarchy. In Thailand, the most respected persons are members of the Royal Family, Buddhist monks, village elders and teachers/university professors. Thai government representatives and members of Thai industry also possess a medium amount of respect, but foreign industry is at the bottom of the “ladder of credibility”.

*“Industry spokespersons, therefore, often enter the public participation process with a credibility deficit. In order to participate in a dialogue, industry representatives need to become credible spokespersons who are trusted by the public”* (McDaniel *et al.*, 1998, p. 3).

Given concerns about the agenda and credibility of industry, the prime mover for collaborative initiatives could be local and/or international NGOs. Enlightened NGOs have recognised the need to work with industry in a collaborative manner to achieve their desired longer term aims (Hastings, 1999; Neale, 1997). Organisations like the World Wide Fund for Nature (WWF) and Greenpeace are increasingly prepared to take on the role of stimulating environmental innovation, and in recent years have been working in international circles to encourage the industry to form alliances for environment improvement projects. As stated by Chris Rose (Campaigns Director, Greenpeace UK)

*“We have to move on from being hunters, hunting out and spotlighting problems, to becoming farmers, nurturing solutions ... Somehow, we have to evolve”* (The Times, 27 September 1995, cited by Neale, 1997).

Similarly, Thilo Bode, soon after his appointment as Executive Director of Greenpeace International, emphasised that solutions campaigning, and seeking business allies, would be central to Greenpeace’s strategy:

*"Industry is the main player in society ... That's why we need to talk to them"*  
(*Financial Times*, 10 January 1996, cited by Neale, 1997, p. 100).

In Thailand, the Thailand Environment Institute has been involved in piloting the introduction of the ISO 14000 series standards in various industry sectors. (PTTEP's ISO 14001 EMS was a product of this initiative). There are also many other local public interest groups and NGOs in that are actively involved in social and environmental reform in Thailand (Baker, 1995).

Smart regulation needs to be developed in consultation with the key stakeholders to acknowledge and address the regulators' financial, labour and skills constraints, industry's concerns about the need to maintain flexibility, and the community's expectations of performance outcomes. Companies, public interest groups and the community may benefit from such collaborative alliances. For example, companies gain early access to the views and demands of public interest groups, which in the long term may help strategic planning and result in cost savings. The public interest groups may benefit due to an increased probability of success in gaining involvement with constructive outcomes that benefit themselves and the wider community (Hartman and Stafford, 1997; 1998; Hastings, 1999). This collaborative approach is therefore potentially effective, efficient, equitable and politically acceptable.

## 7.6 CONCLUSIONS

McPhail and Davy (1998) suggest that the business opportunities arising from environmentally responsible behaviour include developing innovative approaches to environmental problems (sometimes in the face of regulation) and improving efficiency or reducing wastage with associated economic benefits. They acknowledge that the opportunities arising from socially responsible corporate behaviour are less tangible in economic terms, but may include improving the prospects of access to future exploration concessions within the same country or elsewhere, reducing potential conflicts with local communities, which can result in costly delays, and improving employee commitment—all of which may collectively confer competitive advantage on the more socially responsible corporations.

However, these benefits are not always immediately obvious or attractive to petroleum companies, if their market environment is focussed on short-term financial returns. While petroleum companies may espouse to honour their policies and demonstrate corporate social and environmental responsiveness, their performance will exhibit bounded rationality driven by commercial considerations. Anecdotal evidence presented in Chapters 4 and 6 suggests that only those companies that have had a bad public experience or have seen the writing on the wall appear to sense the imperative to step away from the commercially-driven status quo. In the absence of an empowered society

in which all petroleum producers are required to perform to more stringent social and environmental standards, there are limited market-based incentives to encourage all companies to move away from the status quo.

Therefore some regulatory balance needs to be achieved to encourage the good performers to continue to improve their performance, and to control the minimum performance standards of the laggards.

The findings of this research suggest that opportunities for improvement may lie in the harnessing of corporate social responsibilities through peer and third party stakeholder pressure. Peer pressure enforcement of environmental management (and other) practices has some merit, but is also constrained by pragmatic considerations. Companies are sometimes reluctant to criticise the social and environmental management practices of others, in case they suffer the consequences of future reprisals when those companies are a potential partner or competitor. Therefore, it cannot be assumed or expected that they will always adequately consider the needs of the broader stakeholder community.

There is clearly an important role to be played by the industry's traditional regulator, the government. However, in countries like Thailand there is a strong case for revising regulatory frameworks to address their flaws, and to incorporate other mechanisms to establish performance criteria and share the burden of responsibility for monitoring compliance. A tripartite model of community-industry-regulator participation holds some promise, but its design will need to take account of the strategic context in which it is to operate. In the case of the upstream petroleum industry operating in countries like Thailand, that are characterised by under-resourced and bureaucratic government administrations, this situation may be summarised as follows:

- i) Regulators are not adequately equipped to single-handedly administer regulatory mechanisms that require regular and intensive monitoring routines.
- ii) Community participation is constrained by financial, educational and political barriers. They will require assistance to equip themselves to play a regular and active role as a watchdog and a collaborator.
- iii) Little financial incentive is typically provided by the market to introduce innovation to corporate social and environmental management practices if they will cost more, or cause delays to commencement of production.
- iv) Multinational and other high profile petroleum companies will take an active role in designing and implementing social and environmental responsible practices, but need some form of constant driving incentive to justify the investment.
- v) Recalcitrant and low profile petroleum companies will require the most

'encouragement' to improve performance. Pressure may need to be applied to these companies via several regulatory mechanisms.

On the basis of these findings it is suggested that regulatory reform should address the following priorities:

- i) The need for appropriate *information* upon which to base informed decision-making about the nature of industry impacts, and to determine appropriate regulatory tools. The information needs to be relevant, valid, and publicly available. Information requirements are broad ranging and include scientific data, knowledge about existing management arrangements, and strengths and weaknesses of specific regulatory mechanisms.
- ii) The need for *regulatory flexibility* to enable the use of a mix of regulatory instruments (direct, self-regulatory, economic, etc.) tailored to meet specific situations. For example, a more prescriptive approach might be warranted to regulate companies that are known to have a poor environmental performance record, while greater use of mandated self-regulatory instruments might be appropriate for companies that have demonstrated a long-term commitment to the country and to responsible management of their operations.
- iii) Defined roles for third party interests to be involved in design and enforcement of the regulatory instruments, their conditions of use, and their implementation. These interests are also broad-based and include local communities, local and international NGOs, financial institutions, and petroleum industry associations.

Process transparency and access of all interested parties to the decision-making process will be necessary to achieve these reforms. In Thailand, this mechanism would appear to have been established in the 1997 Constitution. However, entrenched bureaucratic modes of repression may work to undermine this power. The general public will likely require assistance and support from NGOs, the media, and respected community spokespersons to have these rights recognised and integrated into planning and decision-making processes. Support could also be provided by the petroleum industry through collaborative partnerships. It appears that it is in both the short- and long-term interest of the industry to be able to operate within a society that understands its business and is prepared to form partnerships to proactively support corporate social and environmental responsiveness, rather than take a reactive adversarial position.

# CHAPTER 8

## CONCLUSIONS AND RECOMMENDATIONS

*“We hear repeatedly from defenders of corporate libertarianism that the greening of management within a globalised free market will provide the answer to the world’s social and environmental problems. With financial markets demanding short-term gains and corporate raiders standing by to trash any company that isn’t externalising every possible cost, efforts to fix the problem by raising the social consciousness of managers misdefine the problem. There are plenty of socially conscious managers. The problem is a predatory system that makes it difficult for them to survive. This creates a terrible dilemma for managers with a true social vision of the corporation’s role in society. They must either compromise their vision or run a great risk of being expelled by the system” (Korten, 1995, p. 212).*



## 8.1 THIS STUDY

The hypothesis of this study is that

*The social and environmental responsiveness practised by companies is moulded by their assessments of the business risks posed by the stakeholder environment. In the absence of a socially acceptable balance of power between companies, their regulators and third party stakeholders, company management practices will tend towards a minimalist position to maximise financial returns.*

The findings of this study (summarised in this Chapter) suggest that sustaining the business incentive of upstream petroleum companies to continuously improve their corporate social and environmental responsiveness, will depend upon the existence of a regulatory framework that encourages, not punishes, innovation.

‘Smart’ or ‘responsive’ regulation is about finding the right mix of regulatory instruments to suit the context in which they are required to perform. The objectives of smart regulation are to: (i) ensure accountability and responsibility by regulators and industry; (ii) allow industry sufficient flexibility to be innovative and adapt to the continually changing demands of the marketplace, without being constrained by overly prescriptive regulations; and (iii) provide a safety net for society’s interests.

In order to develop a regulatory framework for the petroleum industry in which these objectives can be achieved, it is important to understand the dynamics of the relationships between the industry and its stakeholders.

Firstly, it is necessary to understand how petroleum companies operate, and how they make decisions that will directly affect their social and environmental management performance. That is, to identify those factors which mould business management strategies and set performance standards.

Secondly, it is important to design regulatory solutions that are viable within the society in which they are to operate. Namely, that they recognise the origins and characteristics of its laws and regulations, its institutions (and their human, technical and data resources), governing traditions, cultural customs, decision-making processes and its regional context. Legitimacy theory suggests that companies can only continue to exist, if the society in which they are based perceives them to be operating to a value system which is commensurate with the society’s own value system.

To develop an understanding of the factors influencing corporate social and environmental responsiveness in the context of the upstream (production and exploration) petroleum sector, this empirical study has analysed examples of how petroleum company managers perceive and respond to environmental performance

expectations imposed by their stakeholders. The intent of the study is to provide an informed insight to this industry with a view to identifying how best a mix of regulatory mechanisms can be used to harness 'corporate virtue'.

The key findings of this study are summarised in the following sections, framed by the study propositions that were employed to guide this inquiry.

## 8.2 INFLUENCE OF REGULATORY APPROACHES

*Proposition 1. Command and control regulatory approaches are unsuitable for application in developing economies where the enforcement capacity of regulators is constrained by political and financial factors. In these circumstances, companies may exploit regulatory and/or political loopholes in the interests of business expediency.*

Statutory environmental management requirements throughout the South-East Asian region vary considerably. Each of these countries has developed country-specific petroleum laws and environmental laws, drawing upon guidance from a wide range of other national and international standards. As a consequence, there is no uniformity of performance requirements (e.g. oil-in-water discharge limits) in force for the region, despite the high potential for transboundary environmental impacts, particularly in the marine environment.

Legislation and regulations often lag behind community expectations, largely as a result of the lengthy political processes that must be followed in order to enact new legislation. Consequently, the host community is commonly found to be seeking changes, such as greater transparency in government processes and more provision for public participation in planning and decision-making, in direct conflict with prevailing regulatory provisions and government policies. Public challenges to the *Yadana* gas pipeline project, and disposal of produced mercury in the Gulf of Thailand (described in Chapter 6), appeared to partly stem from society's perceptions that environmental laws and regulations are deficient and that the administering institutions are not serving their needs.

The review of the Thai environmental legislative framework, presented in Chapter 5, revealed a number of reasons that have led to such conflict. These review findings, together with the observations of other researchers (including Hammer and Shetty, 1995; Hirsch, 1995; Hossain, 1995; Mantajit, 1998; Phongpaichit and Baker, 1997), suggest that the key factors are as follows:

- i) *The dominance of State systems that are highly elite-centred, and focussed on internal power struggles between bureaucrats and other 'social forces', rather than on the welfare of society and protection of the environment. The residual*

power of the mandarin bureaucrats is entrenched in the government framework—particularly in the military and the Ministry of the Interior.

- ii) *The subordination of legal, bureaucratic and other public institutions to the interests of ruling elites and the spread of non-accountable and corrupt practices throughout government.* Regulatory agencies are not supported with adequate funding, trained staff, or the political will to implement and enforce the legislation and regulations for which they have responsibility. Like most of the South-East Asian countries, Thailand's regulatory administration is currently ill-equipped to effectively implement any environmental protection standards, or honour international environmental treaty obligations. In particular, they lack the financial and technical resources to adequately enforce regulations pertaining to industries operating in remote locations, such as petroleum producers in the Gulf of Thailand. In many cases, government agencies basically cannot, will not, or in some cases, do not know how to, initiate the necessary management programmes.
- iii) *Ineffective conventional command and control approaches to legislation that have difficulties in keeping pace with the rapid increase in environmental problems and changing stakeholder expectations.* There is a lack of knowledge, resources and accountability amongst regulators to effectively deal with environmental management issues at the industry level. Prescriptive, rules-based processes lack flexibility to provide economic incentives to encourage industry to implement voluntary self-regulatory initiatives and demonstrate continuous improvement in environmental management. There is typically no legally recognised mechanism to enable companies to implement other forms of improvement measures in place of inappropriate prescriptive monitoring and reporting processes. These rules-based processes also commonly lack flexibility to enable broader community stakeholders to participate fully in decision-making pertaining to industrial development. This constraint is reinforced by an absence of political will to identify and engage stakeholders in project approval processes.
- iv) *Civil dissatisfaction with systems of representation, arising within weak or long-suppressed sectors of society that have historically lacked the means to effectively hold political leaders and public officials to account.* In the absence of access to power within the Thai mandarin-dominated bureaucracy, the vanguard of the salariat strives to define an arena of open political debate 'outside the system', for example in the print media. The peasantry, excluded from political access, is developing ways to exert its numerical power through modern forms of agitation, which use the media and NGOs to target resources exploited by the urban economy. However, this action is usually antagonistic and while it may achieve

individual project improvements, it does not effectively influence industry-wide policies.

The shortcomings of the regulatory system are compounded by the behavioural characteristics of industry, described in Chapter 4. Upstream petroleum companies may enter and exit countries or particular geographic areas over a relatively short period, as they search for exploitable hydrocarbon reserves. An operational environment characterised by this combination of high risks and high rewards, and constant change, has moulded the culture and business practices of these companies. Within this industry sector, this study has revealed the following traits that can undermine corporate commitment to regulatory compliance or to go beyond compliance and address corporate social and environmental responsibilities:

- i) Managerial decision-making is heavily biased towards assessment of investment risks and returns, and the need to remain flexible to make expenditure cuts in the short-term interests of the business. A decline in commodity prices or a perceived increase in political risk will prompt managers to consider expenditure reductions or withdrawal from the market. Conversely, a rise in commodity prices will be viewed as a short-term cyclical trend that should be optimised in terms of profit, and therefore will not necessarily lead to a loosening of the purse strings in favour of social and environmental management expenditure.
- ii) There is considerable variability between company cultures and business managers in the way they perceive the stakeholder environment. As demonstrated in Chapters 4 and 6, decision-making is influenced by the culture and ethical stance of the company, the personal experience and aspirations of the company managers, the financial and resource (power) base of the company, and the strategic direction that the corporate entity wants to pursue. Many of the large petroleum companies operate through small branch/in-country offices or affiliated companies. In these situations, the company's incumbent country manager may wield considerable control over how the company's business is conducted in that location. Operations managers who are pre-occupied with the 'bottom line' may compromise corporate social and environmental management objectives and standards. Even large well-intentioned multinational companies cannot necessarily control the social and environmental performance of their subsidiaries, if the local business units withhold information from corporate managers.
- iii) The diverse and competing internal and external influences acting on companies require their managers to prioritise their actions according to the way they assess the business risks posed by the regulatory environment, as the minimum performance benchmark. If the host environment does not have a strong regulatory regime, companies will pay less attention to expenditure on regulatory compliance,

in favour of other operating demands. If activities like environmental impact assessment and environmental monitoring are not host country compliance requirements, then these tasks may be avoided or only given token attention. Where petroleum company managers in developing countries observe that poorly managed and more polluting industries are allowed to operate without any apparent sanction, they can often self-justify a choice not to adhere to high standards of performance and incur the associated expenditure, when their local competitors can openly operate to lesser standards.

- iv) Respect for the law may also be eroded under the pressure to boost short-term results, particularly if company managers are not concerned that the governments will actually enforce environmental legislation. The possible costs resulting from prosecution or reputation damage for non-compliance may be dismissed as problems for another day, based on a confident belief that they can be negotiated through captive regulators, or through political connections in the case of state-owned petroleum companies.

When these regulatory and industry sector characteristics are combined, the likelihood of success of existing regulatory controls in developing countries like Thailand appears to be low. As discussed in Chapters 5 to 7, in this type of business environment, industry is not positively encouraged by its government regulators to show initiative or commit to continuous improvement of its social and environmental performance. Critically, there is no indication that these impediments will be removed in the foreseeable future, particularly while the governments and industries in South-East Asian countries are recovering from the substantial negative impacts of the regional economic crisis that occurred in the late 1990s.

Nevertheless, the evidence presented in Chapter 6 shows that elements of Thai society, supported by an influential print media, have demonstrated that they are prepared to speak out about social and environmental issues. They will openly challenge traditional grounds of industry legitimacy (e.g. scientific arguments and government approvals), and the performance of both state-owned and private companies and regulators. These challenges cause embarrassment for both the industry and regulators, and are easily given widespread national and international publicity through the Internet.

As discussed in Chapter 7, with appropriate support, these 'social forces' could be encouraged to channel their energy and commitment to perform a formalised role as both watchdog and collaborator to drive improved regulator and industry performance.

### 8.3 LEGITIMATION STRATEGIES

*Proposition 2. Companies make strategic choices in the formulation of their business plans. Company managers will adopt self-regulatory initiatives and move beyond compliance where they perceive that they will derive benefits, such as avoidance of increased regulatory compliance costs, improved internal management of operating risks, and improved reputation; and/or where setting higher industry standards will give them an advantage over their competitors.*

In the long term, energy sector analysts suggest that there are three megatrends facing the petroleum industry: (i) open markets and competition, such as deregulation of the gas market; (ii) technology improvements, which have significantly reduced costs and increased the efficiency of extracting, converting and utilising energy; and (iii) environmental concerns.

The findings of Chapters 4 to 7 support the proposition that external, mediating and moderating influences play an important role in determining the corporate business strategies of petroleum companies. In terms of social and environmental management practices, both external factors (market pressures, legal-regulatory obligations, and community expectations) and internal factors (e.g. culture, ethics, leadership, etc.) affect the strategic choices made by company managers.

The influence of the external factors is dependent upon the demands of stakeholders. In this regard, stakeholders may be viewed as regulators, company shareholders, and the broader community. Each group is influential, but is typically accorded differing levels of salience.

#### *Shareholder Influences*

Market pressures are of paramount importance. Although petroleum companies vary considerably with respect to origin, size, structure, strategy, management, innovation, flexibility, performance, etc., their behaviour is primarily driven by the need to be profitable and maintain longevity.

Managers of publicly-listed companies often argue that their corporate social and environmental performance is constrained by market forces and the obligation to return profits to its shareholders in the short-term. Corporate governance systems are often based on the principle that management is appointed by and accountable to shareholders, who exercise their control by using their voting rights or by disposing of their shares.

Thus, short-term cost minimisation drives these companies. Typically, little financial or policy incentive is typically given to innovative social and environmental management

practices if they will cost more, or cause time delays relative to the conventional approval process or “basic necessities” in the host country. Even if superior environment-enhancing production methods and techniques become available, companies have a strong economic interest in continuing to operate sites of production using existing capital. Innovation in environmental control at existing sites of production may be limited to just the extra standards imposed by government regulatory agencies. Only where there is a clear, supported directive from the operator’s head office or the joint venture, is there a deviation from this general practice, which is otherwise driven by commercial considerations.

That the market demands short-term returns, prompts companies to avoid expenditure that would arguably enhance the company’s social and environmental performance and be beneficial to the company in the long term. For example, a reputation as a business that is concerned for the environment is likely to bring benefits to the company, yet implementation of the programs that lead to that reputation may be expensive in the short run. As a consequence, this market pressure is likely to lead to management opting for short-term payback wherever possible.

This concern about the market for control assumes that shareholders’ decisions to buy and sell shares are influenced purely by the expected financial return. However, the behaviour of some shareholders, especially ethical investment bodies, may be affected by other factors. A new trend of social and environmental activism amongst shareholders appears to be modifying the nature of shareholder expectations of corporate performance. Public companies are now being required to deal with two broad types of shareholders: (i) the traditional shareholder groups that are primarily interested in the company’s financial performance, such as large institutional investors like pension funds and many private share holders; and (ii) growing numbers of ‘social activist’ shareholders. The latter are currently vocal minorities, and in most cases, the company shareholder majorities have been able to overrule the protests of ‘social activist’ shareholders. However, the actions of the latter highlight the increasing willingness of key shareholder groups to actively express their concerns about corporate social responsibilities, and their ability to harness the resources of the media and the Internet to give them a global profile. Examples of their activism include the stakeholder protests and lawsuits that have arisen from the involvement of the petroleum industry in the exploitation and export of gas from Myanmar. The outcomes of these actions can cause companies to suffer the consequences of adverse international publicity and incur significant financial costs.

Many of the large petroleum companies have learnt this lesson the hard way, and are now paying more attention to demonstrably addressing their corporate social responsibilities. Industry leaders like BP Amoco and Royal Dutch/Shell have recognised that if they are to maintain their social licence to operate within a changing society, they

need to publicly demonstrate commitment to environmentally sustainable and socially responsible business practices.

### *Reputation and Competitive Advantage*

Competitive advantage pressures dictate that where companies perceive a threat to resource access or product sales, the larger petroleum companies, in particular, will implement their social and environmental management initiatives within a broader framework of strategic management, so as to position themselves ahead of their competitors. For example, in some cases, technological advances in emissions control and treatment of wastes are being used by companies to improve their capability to comply with increasingly stringent pollution control regulations, as well as to lobby government for the rights to access sensitive environmental areas. Companies with access to such technologies perceive themselves to have a competitive advantage relative to other petroleum companies.

Company size has an impact on investment in corporate social and environmental management strategies. In general, large firms seem more able (and willing) than small firms to capitalise on the existence of environment-enhancing economic incentives in the industry. Major companies are often more sensitive than smaller independents, to the need to protect their international reputation. There is evidence to suggest that the large companies, in particular, are determined to gain and maintain a competitive advantage based on their environmental performance, as they perceive that their ability to respond to external demands in regard to environmental concerns will be crucial to their competitive position in the future. By comparison, small firms are often short-term oriented, partly because they are dependent upon the volatile spot-market for sale of their products. Consequently, the flow of revenue to small firms is very unstable, and affects their ability to both develop new projects and make long-term investments in environmental quality.

Access to new areas to explore for, or develop resources is critical to the continuity of the upstream petroleum industry. The industry has been actively developing the technology to enable it to successfully exploit resources in deepwater basins and remote locations. However, political access to resources may sometimes be the main impediment to their business. Changing social expectations in terms of community benefits from foreign investment, heightened concerns about protection of sensitive ecosystems and the rights of indigenous communities have led to access exclusions through political sanctions and community protests.

Resource-based industries, like the petroleum industry, are invariably part of a much larger political economy agenda of their home and host countries. Investment in resource development projects that form part of a controversial political agenda, can



lead to petroleum companies facing significant opposition at local and international levels, as has been the experience of Royal Dutch/Shell in Nigeria, Texaco in Ecuador, and Total and Unocal in Myanmar.

The environmental and socio-political issues facing the upstream petroleum industry operating in the South-East Asian region have local, as well as regional and global dimensions. Expectations of corporate social and environmental responsibility emerging in the international arena will increasingly affect business in South-East Asia. Companies will face closer scrutiny from shareholders, lending institutions, NGOs, the media and, increasingly, their own staff. Commercial activities in one part of the world will help determine a company's reputation, and profitability elsewhere around the world. Empirical observations suggest that those companies best able to adapt to this operating environment are those which anticipate problems, maintain communications with NGOs and key interest groups, and present clear, reasoned explanations of their policies during crisis incidents.

#### **8.4 DRIVERS FOR CORPORATE SOCIAL AND ENVIRONMENTAL RESPONSIVENESS**

*Proposition 3. Companies most amenable to making changes that improve their social and environmental management practices will be those whose managers have undergone learning processes as a result of corporate experiences within their own organisation, or those of their peers; and/or are subject to stringent corporate governance systems, home-country environmental standards and regulatory controls.*

The key requirements of a proactive greening strategy, identified in Chapter 2, appear to be:

- i) corporate recognition of the need for change;
- ii) leadership of change; and
- iii) a system to implement the change and to ensure on-going continuous improvement of the greening process.

Fundamental to the greening process, is the ability and commitment of the companies' decision-makers to learn and apply their learning to achieve improved performance.

Corporate liabilities and due diligence requirements (particularly for multinational and foreign companies), and associated risk management expectations imposed by joint venture participants and financiers, are emerging as strong initiatives for the industry to 'go beyond regulation'. With the ever-present threat of more regulatory control and greater public scrutiny of their actions, petroleum companies are being openly

challenged to demonstrate that they are willing and capable of responsibly managing their business.

Evidence presented in Chapters 4 and 6 indicate that this management challenge appears to have been recognised and accepted by several petroleum companies, albeit by imposition in some cases. Through industry associations, and some individual company initiatives, the petroleum industry is demonstrating that it collectively recognises that the existing environmental laws and administrative arrangements are often lagging behind the broader community's expectations and the industry's need for efficiency and efficacy. Within the duration of this research many significant positive changes have occurred within the industry. Some of these changes, such as recognition of the importance of third party stakeholder engagement, have clearly demonstrated the momentum that can be generated once lessons have been learnt and can be related by corporate managers to competitive advantage. The changing response patterns among leading-edge companies are manifest in "the way we do business around here", in the integration of business functions, in the co-operation among people and organisations, and in the generation of new ideas and concepts.

From a public policy perspective, development and implementation of a proactive (innovative) strategy is a more desirable and socially beneficial approach for industry to adopt (relative to a defensive strategy), and would seem to offer more opportunity for progressive, far-reaching improvements in industry-driven environmental management.

As demonstrated in Chapters 4 and 6, strong corporate leadership can be highly influential in setting company social and environmental performance objectives and standards of operation. Evidence presented in Chapter 4 indicates that corporations at the leading edge of innovation and environmental enhancement in the petroleum industry (such as BP Amoco ARCO and Royal Dutch/Shell) seem to share a common set of values. These appear to derive from shared cultural and professional backgrounds, as well as shared experiences inside and outside their organisations. There is also evidence in Chapter 4 that smaller independent companies also now feel empowered by the actions of their peers to pursue ethical stances.

Lessons have also been learnt within the industry, through the impacts of downsizing and outsourcing, and the associated decline in safety and environmental performance. These problems arose from a decline in provision of adequate staff training, poor communication links and understanding of responsibilities within project teams that comprised many autonomous contractors, and/or a lack of commitment to any long-term performance objectives. Lessons learnt from these experiences are now being applied to alliancing contracts between petroleum companies and their contractors, based on four main principles: (i) alignment via performance-based incentive programs; (ii)

commitment to behavioural change; (iii) teamwork and enhanced communications; and (iv) benchmarking and continuous improvement.

However, other empirical examples, discussed in Chapters 4 and 6, indicate that not all companies have 'seen the light'. The extent to which socially and environmentally responsible management practices are adopted appears to depend upon how corporate social and environmental responsibilities are perceived by senior management. Equally abundant evidence suggests that some companies will continue to act as laggards and pursue a minimalist approach to corporate social and environmental responsibility, for as long as they can extract a profit from pursuing their core business in their traditionally isolationist approach.

Based on the empirical examples presented in Chapters 4 and 6, the companies most amenable to accepting and addressing their corporate and social responsibilities generally appear to be the large publicly listed petroleum corporations. Their international reputation is of considerable importance to them, as it affects political access to resources, acceptance by host governments and communities, and their share price (capital availability). Importantly, these companies are usually also more financially secure and better resourced (personnel and technology) to invest in such practices, as compared with smaller companies.

Intermediate-sized companies are variable in their approaches. Their public reputation is less important to them in the international arena, but may be of local importance for brokering contractual agreements with joint venturers and governments. Their assessment of business risks tends to be determined on a case-by-case basis, driven by the influence of cost-benefit ratios.

State-owned enterprises and small independent companies appear to have the least internal and market-driven incentives to go beyond compliance and participate in philanthropic activities. In the case of state-owned enterprises operating in their home countries, they can usually rely upon their government owner to ensure political security and therefore they are less sensitive to public perception of their reputation, as demonstrated by the PTT case study in Chapter 6. Small companies on the other hand, tend to have a low public profile and operate highly cost-sensitive businesses and therefore neither have the external pressure to operate beyond minimum compliance, nor the capital and staff resources to perform other than core business activities.

On the basis of these generalisations, linear approaches developed to describe corporate environmental strategies (discussed in Chapter 2) identify behavioural categories to which companies can be assigned, e.g. non-compliant/laggard, compliant, compliant plus, leader. However, the empirical evidence gathered in this study demonstrates that on a case-by-case basis companies may quickly move between those categories in

response to context-specific pressures. Therefore, there are always exceptions to such the rules. So, while categorical models of corporate management strategies may be of use to regulators and policymakers as a check to ensure they have covered the range of strategic choice positions, they do not capture the dynamics of corporate behaviour.

The Thai case studies demonstrate differences in corporate attitudes to social responsibility. Corporate responses to environmental issues and stakeholder challenges to its social domain appeared to vary according to managers' perceptions of the situation, and hence their determination of stakeholder salience. In these case studies, mediating and moderating factors, such corporate ethics, corporate culture, leadership, and organisational adaptability, appear to have been particularly important. Modifications to strategic approaches were observed to occur over a relatively short time period in response to perceived changes in stakeholder salience, as stakeholders gained one or more of the key components of power, legitimacy or urgency.

In this regard, the model of Ghobadian *et al.* (1998) is perhaps a more realistic representation of the bounded rationality that applies to corporate strategic decision-making. Nevertheless, even their model could tempt us to categorise corporations based on what we observe and hear about them, and then mislead us to believe that we understand where each entity 'fits'. In the current business environment that is characterised by on-going re-structuring and re-engineering of petroleum companies, mergers of companies will inevitably change their organisational cultures and business objectives, so even they may not be able to accurately define their corporate ethos at any given time. Therefore, while strategic choice models can be a useful guide to categorising company behaviour, their usage should be combined with frequent reassessment of the dynamic influence of external, moderating and mediating factors on corporate responsiveness.

It is concluded that the influences on corporate social and environmental responsiveness can be described using a model that integrates aspects of the theories of strategic management, organisational behaviour, and stakeholder mapping and engagement. The conceptual framework constructed by this researcher to show the influence-response relationships between company managers and the stakeholder environment, has proved to be a reliable framework guide to demonstrate how internal and external influences mould corporate social and environmental responsiveness.

### 8.5 CONCLUSIONS

The findings of my research support the hypothesis posed for testing. Empirical evidence demonstrates that social and environmental management practices of petroleum companies are moulded by their assessments of business risks posed by the stakeholder environment. These risk assessments may be proactive as a part of a

strategic planning process, or reactive, that is, in response to an incident, or increasing external pressure. The risk management strategies that evolve from this process are moulded by company managers' perceptions of external factors (market pressures, legal-regulatory obligations, and community expectations), and the context of moderating factors (organisational adaptability, capital availability, human resource availability, technology availability, and assessment of the relative costs and benefits of strategy options). The perception of managers is also influenced by their own situation, personality and past learning experiences, and the culture, ethics and decision-making norms of their company.

Their strategic management choices, be they proactive or reactive, are bounded by rationality. As the opening quote to this Chapter from Korten (1995) highlights, the practical reality and financial pressures of conducting profitable businesses in a highly competitive market are the key influences on the day-to-day operations of petroleum companies. The petroleum industry operates within a commodity market that is characteristically dynamic, and often requires rapid reactive responses from companies in order for them to maintain their market position. Most commonly these responses involve some element of cost-cutting. When the host environmental regulatory system and stakeholder standing are perceived to be ineffective, company managers can easily find other higher priorities to which they should turn their attention. In the absence of an appropriate balance of power between companies, their regulators and third party stakeholders, company management practices will tend towards a minimalist position to maximise financial returns.

The findings of this research suggest that inappropriate legislation, regulations and administrative approaches result in poor process and outcomes and, in some cases, may deter companies from pursuing their corporate social and environmental responsibilities. Governing regulatory frameworks need to incorporate sufficient flexibility to allow companies to pursue market opportunities, while also harnessing the power of peers and third parties to maintain corporate social and environmental responsiveness performance standards. Changes in performance objectives towards greater corporate social and environmental responsiveness will inevitably take time. Long-held assumptions and working practices will need to be continuously challenged.

Without some form of effective external pressure that challenges their market reputation, such as media and NGO campaigns, ethical performance demands from lending institutions, shareholders, and preferential buying by customers, the need to maintain a competitive financial edge discourages companies from voluntarily committing expenditure beyond minimum compliance, if there is no tangible financial return to be gained for their efforts. Some form of regulatory change is therefore

required to drive both the industry and its regulators to be more accountable and responsible for addressing the broader demands of society.

As discussed in Chapter 1, stakeholder dialogue and targeted protest campaigns around the world have made it clear to business and regulators that civil society expects industry to pursue the principles of corporate social and environmental responsibility. Industrial development has commonly been allowed (by governments) to take place at the expense of the natural environment and local community interests. However, the local communities are now bearing the burden of this unfettered development, through the loss of environmental quality, and adverse impacts on public health and wellbeing. Inevitably they will also bear a taxation burden as governments seek funds to address the pollution problems.

As natural resources become more scarce, population increase, and there is greater public demand for improved living conditions, these societal expectations will be expressed more frequently and vehemently. Local community stakeholders have legitimacy and a sense of urgency, and with education are developing techniques to harness the power attribute they need to become definitive stakeholders, as demonstrated in the Chapter 6 case studies.

However, it must also be recognised that a global trend to deregulate and privatise, has led to reductions in government spending, downsizing of regulatory agencies and diminished regulatory enforcement capabilities. The pressing challenge for regulatory reformists in developing countries, in particular, is to design cost-effective, efficient, equitable and politically acceptable regulatory frameworks to reduce the burden of regulatory enforcement on resource-constrained governments, while ensuring that evolving stakeholder expectations of industry performance can be addressed are met, and the business continuity of industry is preserved. The latter will not be achieved by increasing the regulatory compliance burden through command and control approaches. Smarter, more cost-effective regulatory tools are required to enable industry to stay market-competitive, as well as to make financial, technological and personnel resources available to develop innovative, tailored solutions to environmental and social problems.

### 8.6 RECOMMENDATIONS

*How can private and public sector policymakers apply the findings of this research to design and implement regulatory approaches to improve corporate social and environmental management practices of upstream petroleum companies?*

The key to achieving appropriate regulatory reform is acknowledgement of the constraints and opportunities of the context within which the system must operate. As demonstrated in Chapters 5 and 6, in many of the South-East Asian countries, the

governments lack the financial resources and political will to equip the regulators to be strong and effective enforcement agencies. There is also evidence of entrenched bureaucratic agenda in some government circles, characterised by cronyism and self-gain, that are not aligned with the public good. This situation is unlikely to change in the foreseeable future.

These governments are actively encouraging the petroleum industry to be long-term investors in developing and supplying energy resources to serve the growing energy demands of these countries, and to encourage other energy-dependent industries to establish. However, they are also subject to increasing pressure from society (local and international) to be more accountable for their planning and decision-making in regard to industrial development, and to make industry more accountable for their performance. In the absence of an appropriate regulatory framework, these governments are not able to meet those demands on their own. They must find other ways to balance the demands of growth, and social and environmental responsibilities.

On the basis of this research, it is suggested that following contextual observations be used to design an appropriate regulatory and policy regime for the upstream petroleum industry in countries like Thailand:

- i) The industry is mature, but will continue to go through changes in response to the evolving external nature of the energy market. Innovation and technological change drive the industry, so there needs to be flexibility in the regulatory system to allow their technologies and practices to evolve and not be constrained by prescriptive standards that focus on process instead of outcome.
- ii) There are distinctive cultural and size differences between petroleum companies. The dominant group is the increasingly smaller (through mergers) number of large companies (most of them are transnationals). All have very high public profiles and reputations that are of commercial value. They are highly vulnerable to adverse publicity, to shaming by public interest groups and the media, and to other formal sanctions beyond those imposed by conventional command and control regulation. There is also a large number of smaller companies that are particularly difficult to regulate (especially independent explorers in remote areas). They have very different characteristics to the large companies and are likely to respond to very different pressures and incentives. They are often unsophisticated and in some cases economically marginal. They trade with (partner with), and are to some extent dependent upon, the large companies, and are also highly dependent upon spot market prices for their products, and their sources of venture capital (be it shareholders and/or lending institutions).

- iii) The long-term viability of the industry is now perceived by most large petroleum companies to depend upon gaining and maintaining the trust of the public. The industry currently suffers from a relatively poor public image. They are regarded by some sectors of the public to be unscrupulous exploiters. For example, multinational companies often attempt to bridge cultural gaps by adapting to local customs and business practices in their host countries, but as they do this they are then challenged from their home jurisdiction for not adhering to the standards, practices and laws, or ethics of their home country. To resolve this issue, there needs to be a common international focus on achieving best practice performance, without commercial penalties for investing in the necessary equipment and training to achieve this outcome.
- iv) There are strong regional and local industry associations with the capacity to exert considerable influence over the behaviour of its member companies (especially true of those in the developed countries). These associations are aware of the urgent need to put the industry's house in order, to offset government and public pressure to impose more stringent regulatory constraints in the industry. In Thailand, there appear to be opportunities for building stronger linkages between the PTIT and international industry associations like the E&P Forum, to build local capacity in line with international trends in improving industry environmental performance.
- v) Environmental and social changes inflicted by industry projects have the potential to impact on a broad range of stakeholders. NGOs can play an important role in raising these concerns and forging collaborative links with the industry to address these concerns jointly, in a manner that avoids self-serving, bureaucratic interference from the government sector. In Thailand, linkages between the local NGOs, like the TEI and international NGOs, like the WBCSD, will add political weight and international recognition to these initiatives.

Some petroleum company managers will clearly use their vision and resources to push the frontiers of innovation and corporate social and environmental responsibility because they perceive they can harness commercial advantage from this approach. However, others either do not have the same long-term vision or concern, and/or believe they can continue to find shadows in which to operate where they can negotiate or ignore challenges to their legitimacy. The findings of this research suggest that opportunities for improvement may lie in the harnessing of corporate social and environmental responsibilities through peer and third party stakeholder pressure. The industry depends upon market acceptance for its survival. As demonstrated in Chapter 7, it is here that there is opportunity to apply community-driven influence.



Marketplace pressure may also be harnessed through shareholder investment preferences, stock exchanges, and lending institutions that provide venture capital. These stakeholders, together with special interest NGOs and the media, have the ability to apply financial and shaming pressure to companies to drive continuous improvement of their social and environmental responsiveness.

Within the petroleum industry, joint venture partnership and industry associations also provide mechanisms for applying performance pressures to poor performers. They are well aware that reputation has a value in the marketplace, and that the industry is judged by the performance of the worst performer.

Therefore while governments may not be able to dedicate more personnel resources to enforcement of performance standards, some reform of legislation to broaden corporate governance requirements to address CSER within directors liabilities, and strengthening of public standing and public involvement in planning and development approvals processes, will empower third parties to take a more active role in sharing the enforcement burden. Other benefits may include encouragement of more constructive engagement in finding multilateral solutions to local and regional environmental problems.

On the basis of these findings it is suggested that in the first instance, regulatory reform in countries like Thailand should address the following priorities:

- i) The need for *information* upon which to base informed decision-making about the nature of impacts, and to determine appropriate management performance standards. The information needs to be relevant, valid, and publicly available. Information requirements are broad ranging and include scientific data, knowledge about existing management arrangements and perceived strengths and weaknesses.
- ii) The need for *regulatory flexibility* to enable the use of a mix of regulatory instruments (direct, self-regulatory, economic, etc.) tailored to meet specific situations. For example, a more prescriptive approach might be warranted to regulate companies that are known to have a poor environmental performance record, while greater use of self-regulatory instruments might be appropriate for companies that have demonstrated a long-term commitment to the country and to responsible management of their operations.
- iii) Defined roles for third party interests to be involved in design and enforcement of the regulatory instruments, their conditions of use, and their implementation. These interests are also broad-based and include local communities, local and international NGOs, financial institutions, and petroleum industry associations.

Co-operation between industry and its external stakeholders to develop environmental standards and regulatory processes to encourage innovation, can increase stakeholders' understanding of present and future requirements in the business community, as well as increase the probability of buy-in and sustained commitment from industry. A better mutual understanding of both the practical constraints and potential opportunities can be used to design more responsive regulatory tools to address the issues in the local context, and move away from the existing command and control tools that are clearly not geared to encourage initiatives beyond compliance.

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# **GLOSSARY OF ACRONYMS, TECHNICAL TERMS AND UNITS OF MEASUREMENT**



abandon	To cease producing oil and/or gas from a well when it becomes unprofitable. A wildcat well may be abandoned after it has proven non-productive. The abandonment process comprises removal and salvage of part of the well bore casing and placement of cement plugs in the borehole to prevent migration of fluids between the different formations penetrated by the borehole.
ADB	Asian Development Bank.
AIP	Australian Institute of Petroleum.
AMC	Australian Manufacturing Council.
API	American Petroleum Institute. The leading US standardising organisation on petroleum drilling and production equipment.
API gravity	The universally accepted scale adopted by the API for expressing the specific gravity of oils. $\text{API gravity} = \frac{141.5}{\text{specific gravity at } 60^{\circ}\text{F}} - 131.5$
APPEA	Australian Petroleum Production and Exploration Association.
appraisal well	A well drilled as part of a drilling programme to determine the physical extent, reserves and likely production rate of a field.
ASCOPE	ASEAN Council on Petroleum.
ASEAN	Association of Southeast Asian Nations.
associated gas	Natural gas found in association with oil, either dissolved in the oil or as a cap of free gas above the oil.
barrel (bbl)	The unit of volume measurement used for petroleum and its products. 1 bbl = 159 litres (approx.); 6.29 bbl = 1 cubic metre.
BCF	Billion cubic feet; 1 bcf = 0.83 million tonnes of oil equivalent.
bed	A geological term describing a stratum (layer of sediment or sedimentary rock) of considerable thickness and uniform composition and structure.
casing	The steel pipe that is cemented into a well to prevent the wall from caving in and stop unwanted fluids from entering the hole from the surrounding rocks.
CCOP	Co-ordinating Committee for Coastal and Offshore Geoscience Programmes in East and South-East Asia.
circulation	The process of continuously pumping drilling mud down through the drill string and up the annulus during drilling operations.
commercial field	An oil and/or gas field judged to be capable of producing enough net income to make it financially viable to develop.

Completion	The process by which a finished well is either sealed off or prepared for production by fitting a wellhead.
Concession	A licence area that is leased to a company for a given period for exploration and development under specified terms and conditions.
Condensate	A mixture of pentanes and higher hydrocarbons.
Coventurer	A person or company joined with others in a particular venture.
crude oil	The oil that is produced from a reservoir (after any associated gas has been removed); often referred to as simply <i>crude</i> .
CSER	Corporate social and environmental responsibility. As defined below for CSR, with the inclusion of environmental expectations.
CSR	Corporate social responsibility. Defined as the social responsibility of business that encompasses the economic, legal, ethical and philanthropic expectations placed on companies by society (Carroll, 1996).
cubic foot	A standard unit used to measure quantity of gas (at atmospheric pressure); 1 cubic foot = 0.0283 cubic metres.
Cuttings	The fragments of rock dislodged by the drill bit and brought to the surface in the drilling mud. Washed and dried samples of the cuttings are analysed by wellsite geologists to obtain information about the formation drilled.
Development phase	The phase in which a proven oil or gas field is brought into production by drilling production wells.
Development well	A well drilled with a view to producing oil or gas from a proven field.
directional drilling	A technique whereby a well is deliberately deviated from the vertical in order to reach a particular part of a reservoir.
discovery well	The first oil or gas well drilled in a new field; the well that reveals the presence of a petroleum bearing reservoir.
DMR	Department of Mineral Resources, Royal Thai Government.
Downstream	Refers to the transportation, refining, distribution and sales sectors of the petroleum industry, as compared with the <i>upstream</i> sector activities of exploration and production.
drilling contractor	A company that undertakes to provide the equipment and manpower needed to drill a well on behalf of an operator.
drilling fluid	Circulating fluid, one function of which is to force cuttings out of the wellbore and to the surface. While a mixture of clay, water and other chemical additives is the most common drilling fluid, wells can also be drilled using air, gas or water as the drilling fluid.

drilling mud	A mixture of clays, water and chemicals pumped down the drill string and up the annulus during drilling in order to lubricate the system, carry away rock cuttings, maintain the required pressure at the bit end, and provide an aid to formation evaluations.
drilling rig	The complete machinery and structures needed for drilling a well.
dry hole	A well drilled without finding gas or oil in commercial quantities.
dry natural gas	Natural gas that is low in associated liquids; mostly methane with only minor amounts of ethane, propane and butane and little or no heavier hydrocarbons in the gasoline range.
E & P companies	Petroleum exploration and production companies.
E & P Forum	The Oil Industry International Exploration and Production Forum.
ECNEQ Act	The Thai <i>Enhancement and Conservation of the Natural Environment Quality Act</i> , 1992.
economic project	A project that appears likely to yield an acceptable net income after paying all costs, royalties, taxes, etc.
effluent	Waste liquid, gas or vapour from processes.
EGAT	Electricity Generating Authority of Thailand.
EHS	Environment, health and safety. Also referred to as HES (health, environment and safety) and HSE (health, safety and environment).
EIA	Environmental Impact Assessment.
EIS	Environmental Impact Statement.
EEZ	Exclusive Economic Zone.
EMS	Environmental Management System.
ESCAP	Economic and Social Commission for Asia and the Pacific.
EU	European Union.
exploitation well	A well drilled to permit more effective extraction of oil from a reservoir. It is sometimes called a development well.
exploration drilling	Drilled carried out to determine whether hydrocarbons are present in a particular area or structure.
exploration licence	A licence to explore for oil or gas in a particular area issued to a company by the governing State.
exploration phase	The phase of operations in which a company searches for oil or gas by carrying out detailed geological and geophysical surveys, followed up where appropriate by exploratory drilling in the most promising places.
exploration well (wildcat)	A well drilled without knowledge of the contents of the underlying rock structure.

farm in	Where one company acquires an interest in an exploration or production licence by paying some of the past or future costs of another company which is relinquishing part of its interest.
farm out	Where a company relinquishes part of its interest in an exploration or production licence to another company in return for part-payment.
Field	A geographical area under which an oil or gas reservoir lies.
Formation	A homogenous body of rock.
formation water	Water occupying pore space in rock formations.
gas field	A field containing natural gas but no oil.
gas injection	The process whereby separated associated gas is pumped back into a reservoir for conservation purposes or to maintain the reservoir pressure.
gas pipeline	A pipeline used to transport gas between two places either offshore or onshore.
ha	hectare(s).
heavy crude	Crude oil with a high specific gravity and a low API gravity due to the presence of a high proportion of heavy hydrocarbon fractions.
hole	Well bore.
hydrocarbons	Compounds containing only the elements hydrogen and carbon. They may exist as solids, liquids or gases.
hydrocyclones	Cone-shaped centrifuges used for removing sand, silt and other solid particles from drilling mud.
IMO	International Maritime Organisation.
injection well	A well used to inject gas or water into the reservoir rock in order to maintain reservoir pressure in secondary recovery or (in the case of gas) for conservation purposes.
IPA	Indonesian Petroleum Association.
ISO 14000	International Standards Organisation suite of standards for Environmental Management Systems.
joint operating agreement (JOA)	A form of contract most often used by companies jointly engaged in petroleum exploration and production activities to regulate their respective rights and obligations as an unincorporated joint venture.
joint venture (JV)	An investment undertaken by a consortium, usually with one member (or participant) acting as operator.
kamnan	Thai term for a sub-district level community leader.

lease	<p>1. A legal document executed between a landowner, as lessor, and a company or individual, as lessee, that grants the right to exploit the premises for minerals or other products.</p> <p>2. The area where production wells, stock tanks, separators, and other production equipment are located.</p>
licence	An authority to explore for or produce oil or gas in a particular area issued to a company by the governing State.
licence block	A section of continental shelf in a particular national sector bounded by latitude and longitude lines, generally at one-degree intervals; a licence block is usually sub-divided into smaller area.
licence round	A stage in the allocation of offshore licences in which a State places a number of specified areas in its sector on offer to oil companies at one time.
light crude	Crude oil with a low specific gravity and high API gravity due to the presence of a high proportion of light hydrocarbon fractions.
LNG	Liquefied natural gas. Natural gas that has been liquefied by refrigeration or pressure in order to facilitate storage or transport; it generally consists mainly of methane.
LPG	Liquefied petroleum gas. A mixture of light hydrocarbons derived from oil-bearing strata which is gaseous at normal temperatures but which has been liquefied by refrigeration or pressure in order to facilitate storage or transport; it generally consists mainly of propane and butane. Also known as <i>condensate</i> .
lost circulation	The loss of substantial quantities of drilling mud into a formation; also called <i>loss of returns</i> .
m	metres.
marginal field	A field that may or may not produce enough net income to make it worth developing at a given time. Should technical or economic conditions change, such a field may subsequently become commercial.
MARPOL	International Convention for the Prevention of Pollution from Ships.
MBOE	Million barrels of oil equivalent.
mg/l	milligrams per litre.
MGTC	Moattama Gas Transportation Company.
mineral rights	The ownership of any minerals that may exist in the strata beneath a particular area.
MMCFD	million cubic feet per day (of gas).
MNC	Multinational corporation. A company that has investments in more than one country and is organised on an international basis.

MOGE	Myanmar Oil and Gas Enterprise.
MOSTE	The Ministry of Science, Technology and Environment, Royal Thai Government.
MPI	Mineral Policy Institute
MTJDA	Malaysia-Thailand Joint Development Area.
Mud circulation	The act of pumping mud downward to the drill bit and back up to the surface by normal circulation or reverse circulation.
Myanmar	The Union of Myanmar, formerly Burma.
natural gas	A mixture of light hydrocarbons (generally mainly methane) found naturally in the Earth's crust, often in association with oil.
NCGUB	National Coalition Government of the Union of Burma
NEB	National Environment Board, Royal Thai Government.
net income	The income from a project that remains after payment of all costs, royalties, etc.
NGO	Non-governmental organisation.
OEPP	Office of Environmental Policy and Planning, Royal Thai Government.
offshore	The adjective applied to any structure or activity located or carried out at sea, as opposed to on land ( <i>onshore</i> ).
oil	A mixture of liquid hydrocarbons of different molecular weights.
oil field	A geographical area under which an oil reservoir lies.
oil pipeline	A pipeline used to pump crude or refined oil between two places, either offshore or onshore.
OPEC	The Organisation of Petroleum Exporting Countries.
operator	An individual, partnership or corporation that has the legal authority to drill wells and undertake production if hydrocarbons are found. The operator may either drill the wells or employ a drilling contractor for the purpose. The operator is often part of a consortium, such as a joint venture, and acts on behalf of this consortium.
PCD	Pollution Control Department, Royal Thai Government.
PERTAMINA	Indonesian State-owned oil corporation.
Petrochemical	An intermediate chemical derived from petroleum, hydrocarbon liquids or natural gas, e.g. ethylene, propylene, benzene, toluene and xylene.
Petroleum	A generic name for hydrocarbons, including crude oil, natural gas liquids, natural gas and their products.

PETRONAS	Petroleum Nasional Berhad. Malaysia's state-owned oil company.
possible reserves	Those reserves that at present cannot be regarded as 'probable' but are estimated to have a significant but less than 50% chance of being technically and economically producible.
probable reserves	Undeveloped oil and/or gas reserves considered to be recoverable from penetrated formations, but lacking information to be classified as proven reserves.
Production	<p>1. The phase of the petroleum industry that deals with bringing the well fluids to the surface and separating them, and with storing, gauging, and otherwise preparing the product for the pipeline.</p> <p>2. The amount of oil or gas produced in a given period.</p>
production drilling	Drilling of wells in order to bring a field into production.
production licence	A licence to produce oil or gas in a particular area issued to a company by the governing State.
production phase	The phase in the life of a field in which oil or gas is produced.
production platform	A platform from which development wells are drilled and which carries all the associated processing plant and other equipment needed to maintain a field in production.
production well	A well used to remove oil or gas from a reservoir.
proven field	An oil and/or gas field whose physical extent and estimated reserves have been determined.
proven reserves	Those reserves which are on the available evidence are virtually certain to be technically and economically producible (i.e. having a better than 90% chance of being produced).
PSC	Production Sharing Contract. Contract entered into by a company and an authorised State enterprise, in which the company (Contractor) undertakes to render technical and financial services, and within this framework, undertake and finance the petroleum operations described in the contract. As financial compensation for rendering these services the Contractor will receive a certain part of any production that might result from the company's work.
PTIT	Petroleum Institute of Thailand.
PTT	Petroleum Authority of Thailand.
PTTEP	PTT Exploration and Production Public Company Limited.
recoverable reserves	That proportion of the oil/gas in a reservoir that can be removed using currently available techniques.
Reservoir	A stratum in which oil or gas is present.

return on investment (ROI)	The net profit after tax expressed as a percentage of the total money invested in an enterprise.
risk capital	Equity capital raised to finance a development that has technical, economic and other risks attached to it and thus cannot guarantee a return on the investment.
Royalty	A share of the production or revenue reserved by the grantor of an oil lease or licence.
secondary recovery	Recovery of oil and gas from a reservoir by artificially maintaining or enhancing the reservoir pressure by injecting gas, water or other substances into the reservoir rock.
Sector	An area of the continental shelf in which the mineral rights belong to one particular State.
Sedimentary basin	An area in which thick layers of sedimentary rocks have been laid down over a long period of time.
Seismic	An acoustic method using a source and multichannel recording to compile sections or profiles under the earth or seabed; one of the main geophysical methods used (e.g. high resolution, 3D, refraction, etc.).
seismic exploration	An exploration technique involving the use of seismic methods to determine the detailed structure of the rocks underlying a particular area by passing acoustic shock waves into the strata and detecting and measuring the reflected signals.
SET	Stock Exchange of Thailand.
SLORC	Myanmar's State Law and Order Restoration Council. Renamed the State Peace and Development Council (SPDC) in 1997.
source rock	The rock in which oil or natural gas originates.
SPDC	Myanmar's ruling State Peace and Development Council (formerly known as the State Law and Order Restoration Council (SLORC)).
SPE	Society of Petroleum Engineers.
Spud	To begin drilling a well. <i>Spudding in</i> is the process of starting to drill a well by making a hole using a large-diameter drill bit.
supply base	An onshore base from which supply boats operate.
tanker	A ship or vehicle used to transport oil, refined products or liquefied gas.
TBCSD	Thai Business Council for Sustainable Development.
TCF	Trillion cubic feet (of gas).
TEI	Thailand Environment Institute. Secretariat for the TBCSD.



TEPT	Total Exploration and Production Thailand.
terminal	An onshore installation designed to receive oil and/or gas from a pipeline or from tankers.
TFI	Thai Federation of Industry.
TLP	Tension-leg production platform.
TMEP	Total Myanmar Exploration and Production Company.
ton	A long ton weighs 1,018 kg (2,240 pounds); a short or net ton weights 909 kg (2,000 pounds); a metric ton equals 1,000 kg (2,200 pounds).
trap	A geological structure in which hydrocarbons build up to form an oil or gas field.
UK	United Kingdom of Great Britain.
UKOOA	United Kingdom Offshore Operators Association Limited.
UNCED	United Nations Conference on Environment and Development held in 1992 in Rio de Janeiro, Brazil.
UNCLOS	United Nations Conference on the Law of the Sea.
UNDP	United Nations Development Programme.
UNEP	United Nations Environment Programme.
unitisation	When owners of oil and/or gas reserves pool their individual interests in return for an interest in the overall unit, which is then operated by a single company on behalf of the group, thus increasing efficiency.
unit operator	The company in charge of development and producing in an oil field in which several companies have joined together to produce the field.
upstream	Refers to the exploration and production sectors of the petroleum industry as compared with the <i>downstream</i> sector activities of product transportation, refining, distribution and sales.
US	United States of America.
vapour	Substance in a gaseous form.
Vietnam	The Socialist Republic of Vietnam.
water injection	A process whereby treated water is pumped into reservoir rock in order to maintain the reservoir pressure.
WBCSD	World Business Council for Sustainable Development
well bore	The hole in the rock made by the drill bit.
well completion	The activities and methods necessary to prepare a well for the production of oil and gas; the method by which a flow line for hydrocarbons is established between the reservoir and the surface.

## GLOSSARY OF ACRONYMS, TECHNICAL TERMS AND UNITS OF MEASUREMENT

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Wellhead	The control equipment fitted to the top of a well casing, incorporating outlets, valves, blowout preventers, etc.
wet gas	Natural gas that contains large amounts of associated liquids.
wildcat appraisal well	An appraisal well drilled with minimum preliminary information about the underlying structure and conditions; it usually follows a wildcat well that reported shows of oil or gas.
WWF	World Wide Fund for Nature.