The Impact of Environmental Impact Assessment (EIA) on New-Housing Development, A Case Study of Bangkok Thailand

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By

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ABSTRACT

Countries with rapidly growing economies, such as Thailand, must address the existing conflict between the promotion of environmental protection and the endorsement of economic development—a conflict that places significant strain on public policy. The question that remains concerns the methods via which such economies can adopt in order to maintain steady growth while mitigating the negative impacts on the environment. Although the housing development sector is a major driver of economic growth, it also has the potential to negatively impact the environment. In concurrence with rapid urbanisation, the demand for housing development is also on the rise, thus contributing to greater environmental stress. To address this issue, the Thai Government introduced the Environmental Impact Assessment (EIA) in 1981 to identify environmental problems associated with major development projects in order to achieve sustainable development goals.

This thesis explores the extent to which the EIA impacts the development of new housing in Bangkok, Thailand. It seeks to identify how the state impacts private housing development by regulating and directing new house building. The study questions the extent to which state actions are influenced by private sector efforts to 'control' state influence. Thus, the research investigates: (1) how far the implementation of environmental regulation in new housing development reflects the priorities of the private sector or those of national-local state authorities; and, (2) how far the framework for environmental regulation is a reflection of state sector imperatives or reflects a circumscribing of the role of the state by the private sector. As such, this research focuses on the interplay between the interests of the state and private sector actors, conceptualised in terms of how these competing interests

influence the introduction of new environmental demands in new housing development projects. Thus, the study focuses on state-capital relationships through a corporatist theoretical approach. The primary method of data collection in this research is in-depth qualitative interviews featuring large-scale and small private developers, housing development-related associations, EIA consultants, politicians, senior and street-level bureaucrats, NGOs, and academic scholars.

The results of this study indicate that EIA has not been implemented effectively in Thailand primarily owing to the absence of political commitment, unclear legislation, an inflexible governance structure, inefficient allocations of authority, a lack of intercommunication between the civic and private realms, insufficient monitoring and implementation, and mechanism impotency. Thus, EIA has been concomitant with both micro and macro level impacts on new-housing developments. It further shows that economic growth has been the main priority for national development goals and hence, environmental considerations are rarely given precedence in the public and private sectors' decision-making process.

Therefore, it is argued that Thailand should consider reforming its EIA regulations and implementation strategy to counteract future imbalances between the growth of the economy and the decline of environmental conservation. In order to make EIA procedures more effective, this study suggests that it is imperative to (i) encourage political will; (ii) amend EIA regulations to enable efficient execution of the policy at every level; (iii) create codes of practice and precise guidelines for all stakeholders; (iv) strengthen institutional capacity; and, (v) enhance regulatory procedures, particularly monitoring and public participation.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABBREVIATIONS

ADB	Asian Development Bank
AREA	Agency for Real Estate Affairs
ARL	Airport Rail Link
BMA	Bangkok Metropolitan Administrative
BMR	Bangkok Metropolitan Region
BOI	The Board of Investment of Thailand
BOT	Bank of Thailand
BTS	Bangkok Mass Transit System
CBD	Central Business District
CODI	Community Organizations Development Institute
DEIE	Division of Environmental Impact Evaluation
DCP	Department of City Planning, BMA
DEQP	Department of Environmental Quality Promotion
DPT	Department of Public Works and Town & Country Planning
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EGAT	Electricity Generating Authority of Thailand
ERC	Expert Review Committee
FAR	Floor Area Ratio
GDP	Gross Domestic Product
GHB	Government Housing Bank of Thailand
GSB	Government Saving Bank
HIA	Health Impact Assessment
IEE	Initial Environmental Examination
IMF	International Monetary Fund
JPPCC	Joint Public-Private Consultative Committee
MOF	Ministry of Finance

MOI	Ministry of Interior
MONRE	Ministry of Natural Resources and Environment
MOSDHS	Ministry of Social Development and Human Security
MOSTE	Ministry of Science, Technology and Environment
MRT	Metropolitan Rapid Transit
NCPO	National Council for Peace and Order
NEB	The National Environmental Board
NESDB	National Economic and Social Development Board of Thailand
NESDP	National Economic and Social Development Plan
NEQA	Enhancement and Conservation of National Environmental Quality Act
NGOs	Non-Governmental Organisations
NHA	National Housing Authority
NIC	Newly Industrialised Country
NSO	National Statistics Office
OAG	Office of the Auditor General of Thailand
OEPP	Office of Environmental Policy and Planning
ONEB	Office of the National Environment Board
ONEP	Office of Natural Resources and Environmental Policy and Planning
OTP	Office of Transport and Traffic Policy and Planning
PCD	Pollution Control Department
REIC	Real Estate Information Centre
SBR	State-Business Relationships
SEA	Strategic Environmental Assessment
SIA	Social Impact Assessment
TCA	Thai Condominium Association
TCC	Thai Chamber of Commerce
TDRI	Thailand Development Research Institute
UCDO	Urban Community Development Office

CHAPTER 1 INTRODUCTION

1.1 Introduction

This thesis focuses on the relationship between the state and the business sector in deciding on the character of new housing developments in Bangkok, Thailand. In particular, it places this investigation in the context of the theoretical literature on state-capital relationships, which posits various interpretations of the extent to which the state acts in an independent manner, thereby influencing the distribution of capital. The thesis explores how far public policy, especially as regards environmental regulation, impacts new housing development schemes in Thailand's capital city.

In this chapter, the central dimensions of the research and the importance of the research question are explained. The importance of this research is rooted in the tensions that exist between promoting environmental improvement while championing economic development. These tensions serve to impose a notable public policy strain in rapidly growing economies. From a state perspective, one mechanism that has been widely adopted across the world to mitigate the impact of large projects on the environment is the introduction of Environmental Impact Assessments (EIAs). In this thesis, the state-capital relationship is explored primarily through examination of the introduction (then adjustment) and implementation of EIA procedures in Bangkok. The context of these procedures is brought into highlight in the second section of this introduction, which is followed by a broader commentary on the dynamics and strains between environmental sensitivities and economic development in high-growth economies like Thailand. This introduction concludes with an outline of the structure of the thesis.

1.2 Housing Development and the Environment

Housing construction has the potential to cause many environmental problems. It may contribute to excessive resource depletion, global warming, and issues pertaining to human health and well-being (UNEP, 2011). Globally, buildings are responsible for 40 percent of annual energy consumption and up to 30 percent of all energy-related greenhouse gas emissions (UNEP, 2011). As populations grow, these impacts pose increased problems for humankind, with population concentrations in cities offering heightened environmental challenges (Cui & Shi, 2012). In this sense there is a need to understand how changes associated with urban growth might drive, constrain, shape, or influence the attainment of a more sustainable future. The question is, how can economies continue to grow effectively while mitigating negative impacts on the environment? How can ecological and economic considerations be merged so that they result in cumulative and lasting advantages for cities? According to the World Bank:

> *Innovative cities have demonstrated that, supported by the appropriate strategic approach, they may greatly enhance resource efficiency by realizing the same value from a much smaller and renewable resource base, while decreasing harmful pollution and unnecessary waste. By achieving this, they have improved the quality of the lives of their citizens, enhanced their economic competitiveness and resilience, strengthened their fiscal capacity … and created an enduring culture of sustainability. (Suzuki, Dastur, & Moffatt, 2010, p. XVIII)*

Yet, what we know is that not all cities act in this way. Hence there is the question of what makes actors in particular cities behave as if they embody a culture of sustainability? Indeed, even if cities do not have this cultural standing, we can expect

some urban agents to push for this kind of outcome, while others are resistant. Currently as regards housing, there is little research that has been undertaken in the theoretical and empirical literature, which explores how stakeholders involved in housing development respond differentially to the dual challenges of maintaining economic buoyancy while encouraging environmental gains (or even mitigating environmental damage). Understanding the juxtaposition of these forces is particularly important for new housing construction, since it is here that the latest innovations can be most effectively introduced on a large-scale. Understandably, this means that in rapidly growing economies where new housing development is a major force in city transformations, the relationship between new housing, environmental quality and economic progress is especially critical.

The main purpose of this research is to explore the relationship between these three activity spheres in terms of how major agents for change in the city prioritize economic and environmental considerations in new housing development. In particular, the thesis investigates how agencies of government and house building companies (and their representatives) interact and impose on one another either to tighten or to loosen environmental considerations in house building. As such, an initial focus of the thesis is on the imperatives within each sector to infuse decision-making with environmental sensitivities. In the case of government agencies, the impetus towards enhancing environmental concerns might seem obvious given the worldwide debate on global warming, intergovernmental commissions and investigations of climate change, concerns over water shortages and pollution, and the encouragement of dominant powers and international agencies like the UN for national governments to behave in an environmentally responsible way (Abaza et al.,

2004; Mol, 2003; Suzuki et al., 2010; Zhang et al., 2011). Yet awareness of the gains that can accrue from environmental improvements, as with pressures from others to dampen environmental harm, is an uncertain determinant of governmental behaviour. Other imperatives, such as promoting economic growth, might be equally or more important, perhaps especially in low-income countries where there is a large population with limited household resources (Buttel, 2000). Hence, governments might pay lip service to the need for environmental improvement, while barely pushing enterprises to take any action, perhaps not because of their priorities but due to weak implementation practices (Siedentopf & Hauschild, 1988). Similarly, while it might be imagined that developers are resistant to restrictions arising from demands for greater environmental sensitivity, pressures on developer decisions are multifarious, as are market demands, which can lead to differential outcomes (Carmona et al., 2003).

1.3 The Importance of Environmental Policy

One way to solve problems of environmental accountability is to regulate activities and impose forfeits on those who overuse resources, to create a sense of awareness about the damage that wastefulness can cause. The ability to regulate in this way relies on the instruments available in environmental policy, which, if implemented effectively, can impact on both production and consumption to increase environmental gains (Sanchez, 1997, p.141). Lack of political will, however, has caused environmental degradation. History has already shown that without such regulation, the consequences of harming the environment ultimately affect human life in the long-term (Carson, 2002). The depletion of the rain forest, acid rain, global warming, noise pollution, climate change and so on, are problems of today that are

not being actively averted (Berman & Bui, 2001). Lack of concern of the political leaders for the environment reflects the fact that environment is not a priority (Canari, 2008). However, given the political will, policy can ensure that, in the short-term, the costs for such negative externalities can be imposed (in some measure at least) on those primarily responsible (Crepaz, 2007).

Of course, imposing such costs, given that they have not been levied on perpetrators of environmental damage in the past, is contentious. Concomitantly, the environment has become a political arena of increasing conflict in recent years (Patrick, 2007). Political parties work hard to develop an image of environmental conscientiousness, and it is difficult to determine when this is genuine and when it is only intended to garner favour. The only way to determine authenticity is to examine actions, rather than stated policies. For example, in the USA, there was a 140 percent increase between 1979 and 1993 in pollution control in manufacturing (Berman & Bui, 2001, p.498). This growth is reflective of a change in attitudes whereby environmental concerns in the USA have been steadily incorporated into many national and international agendas. As commentators have noted, there was previously a clear distinction between economic and non-economic issues in politics, however the boundaries are increasingly blurring, particularly in the UK's social democratic parties (Kitschelt, 1994). Political policies seeking to tackle environmental issues are becoming fairly normal worldwide. It is in the interests of such parties to ensure that their efforts are genuine, because politicians who feign an inclination towards environmental concerns may suffer severe backlash if their electorates are not convinced by their rhetoric (Inglehart, 1997). The potential consequences could be

more severe for politicians than would be the case if the problem was simply ignored, although this is currently not an option in many countries (Bernhagen, 2007).

Yet, at the global level, there is little economic incentive for enforcing environmentally safe practices, since it is almost always more expensive to be conscientious (Golub, 1998). Governments may worry that, the strict enforcement of environmental policies may undermine domestic businesses and create market advantages for foreign companies that are less inclined to act ethically (Golub, 1998, p.4). Competition from other countries and tight budgets mean that most countries are unwilling to be the first to adjust their policies, for fear of losing market share (Ulph, 1997). Although the costs of optimal environmental practices are high, do long-term economic benefits justify these costs? Further, are the key players whose actions can have major environmental impacts convinced that this might be the case? Most analysts certainly suggest that the private sector still stresses the costs and disadvantages of having to adhere to environmental policy (Bernhagen, 2007). The political actions that are instigated by this potential standoff should provide nuanced insight on whether there is a skewed balance of power resulting from immediate government dependence on the economy or whether broader, long-term national priorities are ascribed greater importance. Along these lines, it is thus imperative to investigate the power relations between the state and capital that underpin the formation of environmental policy.

1.4 Environmental Impact Assessment (EIA)

There has been growing interest in the introduction of legislation that influences relationships between development and the environment in recent decades (Glasson et

al., 2005). Environmental Impact Assessments (EIAs) provide one example of such interventions, with this tool providing a mechanism for assessing the impact on the environment of development projects. First presented in United States in 1969 under the National Environmental Policy Act (NEPA) (Stampe, 2009), EIA requirements have been applied in many countries worldwide. Not unexpectedly, as EIA outcomes can point to unevenness in gains and losses between the private and public sectors from development projects, their introduction has not been without controversy. This observation is applicable even if we ignore the uncertainties concerning whether government agencies will act on problems identified via EIAs. Thus, while from a state perspective an EIA is an aid to decision-making over a proposed project, as well as an instrument for improving environmental quality, developers are prone to see EIA requirements as an obstruction to their activities (Glasson et al., 2005). This is not simply because the EIA process can be time-consuming and costly but also because state agencies might use EIA conclusions to turn down development proposals (Glasson et al., 2005). Thus, Glasson et al. (2005, p.8) opine that "EIA[s] could be of benefit to developers, since it can provide a framework for considering location and design issues and environmental issues in parallel. It can be an aid to the formulation of development actions, indicating areas where a project can be modified to minimize or eliminate altogether its adverse impacts on the environment." Further, O'Riordan (1990, p.13) has argued that the EIA process can be positive for promoting harmonious linkages between development and the environment if it adapts as noted:

> *One can see that EIA is moving away from being a defensive tool of the kind that dominated the 1970s to a potentially exciting environmental and social betterment technique that may well come to take over the 1990s... If one sees EIA not so much as a technique, rather as a process that is constantly changing in the face of shifting environmental politics and managerial capabilities, one can visualize it as a sensitive barometer of environmental values in a complex environmental society. Long may EIA thrive.*

What lies underneath such claims is an understanding that an environmental 'crisis' is so entrenched that governments cannot ignore public concerns, nor can they fail to notice the already tangible effects of major environmental issues like climate change. It is no surprise then that since 1988, the Thai government has been using EIA as a means of environmental planning and managing projects/activities to counterbalance the impact of developments on the environment (ONEP, 2012). The Enhancement and Conservation of National Environmental Quality Act (NEQA) was implemented in Thailand as early as 1975. Today, it forms a standard screening process in the planning of business ventures. It has been used to identify the impacts of projects, as well as to establish appropriate mitigation measures, so natural resources are efficiently used for economic development, within the housing sector in particular. The main objective of EIA in Thailand is to prevent environmental problems arising from major development projects, with the long-term aim being to achieve sustainable development objectives. EIA is designed to ensure that planning decisions for projects with possible significant effects on the environment are made by bodies with full information concerning likely impacts.

1.5 The Research Context

In the last decade, increasing population mobility in Newly Industrialized Countries (NICs)[1] has engendered major migration flows from rural to urban areas. These population flows have largely been due to economic and social disparities, with economic transformation a key driving force behind continuous urban growth (Evers, 2000; McGee & Robinson, 1995).[2] In terms of this growth trajectory, the various countries that comprise the NICs demonstrate similar tendencies toward a systemic transformation in their economies toward an internationally competitive market-centred model (Otani et al., 1996). This shift towards a market-based economy has been driven by a desire to achieve improved economic performance, with governments working with the private sector to promote new economic activities and support industrial restructuring (Chopra, 1995). This quest for enhanced economic achievement has encouraged reform in state enterprises and the revitalization of the private sector, as seen through lifting centralized planning imperatives and reducing bureaucracy within government agencies (Buckley, 1994).

One implication of these reforms has been growth in population concentrations into (especially larger) urban centres. In this context, shifting demand for housing is intimately related to national socio-economic and political change. In the case of Thailand, there has also been a direct consequence for housing provision, through a reduction in direct state involvement in housing supply (Dowall, 1992). Yet this shift

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[1] The term Newly Industrialized Countries (NICs) refers to countries with high-growth

[2] In the case of Thailand, for example, the urban population increased from 19.7 percent in 1960 to 34 percent in 2010, from 5.4 million to 20.8 million inhabitants, with a recent estimate that 53 percent of the nation's population will live in urban areas by 2040 (Government Housing Bank, 2011).

has not seen the abrogation of state responsibilities for housing, for a number of reasons. First, states still have a major role to play in formulating and implementing policies that help determine the socio-economic and regulatory environment in which shelter is provided. Thus, while it did not provide housing units itself, in the 1990s, the agenda of Thailand's 5th-6th National Economic and Social Development Plans (NESDP) was dominated by the UN Habitat's concept of 'enabling shelter strategies', which called for a stronger emphasis on private sector development of new homes (Usavagovitwong, 2012)**.** According to the Government Housing Bank (Government Housing Bank, 2007), the portion of the Bangkok Metropolitan Region's (BMR's) housing stock built by private developers increased from 34 percent in 1980, to over 80 percent by 2000, illustrating the magnitude of change that occurred. Housing production in the public sector, through the National Housing Authority (NHA) and Bank of Investment (BOI), has however been very limited in recent decades.

Arguably, the removal of state enterprises from the direct provision of housing does not lessen the importance of housing for national governments. Without proper government planning legislation, for example, a rapid growth of private development might cause significant problems for housing affordability, deficiencies in housing quality, traffic congestion and inadequacies in infrastructure in zones of residential expansion. As Bengtsson (2009, p.4) has argued "if housing is basically a private good, why is its provision seen as a matter of political concern at all? One answer is that the specificities of the housing market, if left alone, may result in strong fluctuations and in heavy imbalances in market power between suppliers and consumers."

In the context of the Philippines, Strassmann (1994) has shown that the largely unregulated housing and land market in Manila is associated with a highly inefficient housing market that is characterised by a high degree of land speculation, idle land in private hands, and high housing and land prices. This is despite the Philippines having an efficient building industry and an active real estate market (Strassmann, 1994). The degree to which housing markets are deregulated or ineffectively supervised has a bearing on the efficiency and effectiveness of housing supply systems. This does not mean that there is a 'natural' tendency toward effective supervision, for private developers can see personal (or at least company) advantages for themselves in less formalised systems. Hence, to understand interactions between the state and private investment in new housing construction, we have to ask whether the laxity or tightness of state supervision is an outcome of vested interests seeking advantage from how the system is framed.

In the case of Thailand, all house building is subject to approval from relevant national and local authorities. Approval processes, including land conversion into housing, preparation of layout plans, building and structure plans, planning of infrastructure and environmental impact assessments (EIA), involve many government agencies, both at national and local levels. In the Bangkok Metropolitan Region, these agencies include the Urban Development Planning Division under Ministry of the Interior, which oversees the Building Control Act and the Town Planning Act, and the local administration, which gives planning and building approval, as well as provides public utilities and infrastructure. Office of Natural Resources and Environmental Policy and Planning (ONEP) provides EIA approval.

In housing development process in Thailand, EIA is an important means of ensuring that developers incorporated environmental protection as an integral part of the building process (Atkinson & Vorratnchaiphan, 1996). Using EIA became compulsory in both the private and public sector, although its degree of success in contributing to sustainability has been limited by the fact that its use is overseen by the governmental and administrative apparatus of Thailand (Mingsa et al., 1996). EIA is seen by project proponents as being something they need to adopt in order to be permitted to practice, rather than as a tool to be incorporated in decision-making of a project, meaning that it is not yet being used for the purpose for which it is intended, which has limited its effectiveness (Katharangsiporn, 2013).

Despite the multiplicity of agency involvement, previous studies have shown that successive governments in Thailand have had no comprehensive or integrated housing and EIA policy; they have instead launched disjointed programmes to improve housing quantities and quality (Hiebert, 1997; Marohabutr, 2011; Sheng, 2002; Usavagovitwong, 2012). The 1990s, for instance, saw a major shift in economy-led development under the 6th and 7th National Economic and Social Development Plans, whereby the pace of market-driven processes rose more dramatically than responses in political platforms or in bureaucratic systems. Uneven and unbalanced development resulted in many environmental and socio-spatial deprivations, which were associated with a lack of adequate city planning and environmental instruments (Agus et al., 2002; Marohabutr, 2011; Sheng, 2002). Then, in 1997, Thailand faced a severe economic crisis following monetary attacks by international hedge funds, which led to the collapse of new house building (Usavagovitwong, 2012). These perturbations prompted the Government of Thailand

to initiate new policies and programmes to address housing challenges (Marohabutr, 2011; Sheng & Kirinpanu, 2000).

Yet, the question can be raised over the likelihood that government initiatives provide a framework for coherent housing responses. As Sheng (2002) has suggested, many of Thailand's ministers have close relations with commercial banks and the real estate sector, since both support political parties financially. Indeed, professional staff move freely between the Bank of Thailand (the regulator) and commercial banks (the regulated), which has not helped to maintain strict control over the banking sector (Sheng, 2002). Sheng posits that large-scale developers are important financiers of political parties in order to make sure government policies and legislation favour the real estate sector. However, these assertions are based on anecdotal as opposed to empirical evidence. Nevertheless if these propositions are indeed the case, then this creates an enabling environment especially EIA for the real estate sector to launch projects, and makes it harder for state agencies to introduce regulations that do not secure the approval of property developers (Sheng, 2002). Such an outcome could suppress new initiatives, such as the introduction of environmentally sensitive building codes (Keivani & Werna, 2001). This issue forms a key focus of this thesis.

1.6 Research Questions and Objectives

Amidst stricter regulations, the potential for friction between state agencies and builders has intensified. It may however be argued that tensions over EIA processes diverge from other forms of strains in state-capital relationships. Thus, theoretical perspectives on the state in capitalist societies (e.g. Dunleavy & O'Leary, 1987) should provide nuanced insight on the interactions between the two. Drawing from

this literature, in this thesis, I attempt to answer the question of how the state impacts private housing development through regulating and directing new house building. I also question the extent to which the strength and content of state actions are influenced by private sector efforts to 'control' state influence. As part of these overarching questions, I further seek to explore: (1) how far the implementation of environmental regulation in new housing development reflects the priorities of the private sector or those of national-local state authorities; and, (2) how far the framework for environmental regulation is a reflection of state sector imperatives or reflects the circumvention of the state by the private sector. Thus broadly, this research focuses on the interplay between the interests of the state and private sector providers, viewed in terms of how these 'competing' interests impact on the introduction of enhancements to environmental demands in new housing development. It seeks to understand both theoretically and empirically, the impact of EIA on new housing development in Bangkok, Thailand.

The purpose of this study is to investigate the decision-making processes that underpin public policy-making and implementation, as well as decision-making in relation to private new housing development. Overall, the aim is to discover why certain options are selected and others disregarded. The study will consider factors such as timing, costs, land-use constraints, amongst others, and the extent to which they make developers more or less likely to provide higher environmental quality in their projects. In exploring this, the study views new housing development as the outcome of interactions between a set of institutions and actors organised around processes for the promotion, production, marketing, and consumption of housing,

with these processes socially created and dependent on cultural, economic and political contexts.

The pertinence of this study is rooted in the limited literature on new housing development, and the relationship between housing and the environment in economically dynamic countries. While in these countries, there is a substantial body of literature on issues such as low-income housing and housing affordability, housing choices and migration, and on changing government policies, especially the shift toward the privatization of state-owned dwellings (Boonyabancha, 2009; Hiebert, 1997; Marohabutr, 2011; Sheng, 1989, 2002; Usavagovitwong, 2012), there is a notable gap with regards to research on new housing developments in Thailand.

Existing studies tend to focus on provision for the low-paid, where often, the centre of attention is state policy (Agus et al., 2002; Aldrich & Sandhu, 1995; Boonyabancha, 2009; Marohabutr, 2011; Sheng, 1989, 2002; Sheng & Kirinpanu, 2000; Wong, 2001). With little research on new housing development, it is tempting to draw insights from European Union (EU) and North American investigations. It is however argued that these approaches are heavily biased toward institutional frameworks that do not conform with the institutional specificities of Newly Industrializing Countries (NICs). Longer histories of democracy in the EU and North America, dissimilar histories of state involvement in housing provision (for whatever reasons, housing has prompted significant state interventions for many decades in the EU and North America; Harloe, 1995) and different structures within the private sector (larger, more established companies in the EU and North America) account for very different institutional frameworks in NICs and EU-North American contexts. Thus, by

investigating the relevance of EU-North American insights in a NIC context, this study makes an important contribution to the literature.

The empirical analysis that underpins this thesis focuses on the systems of actors, institutional structures, and processes in policy-making via the overarching questions: 'who takes the lead in determining environmental inputs into new housing development?' and 'how are environmental considerations in housing development influenced by public policy?' In order to answer the above questions and to further gain a nuanced understanding of the underlying considerations that result in particular building outcomes, a qualitative research approach is adopted. The study relies on primary data collected via semi-structured in-depth interviews with stakeholders who have held key positions or played important roles in the EIA process, large-scale and small private developers, housing development-related associations, EIA consultants, politicians, senior and street-level bureaucrats, NGOs, and scholars, as further delineated in Chapter 3 of this thesis.

1.7 Outline of Thesis

The remainder of this thesis is structured as follows: in chapter two, the literature on the relationship between capital and the state is critically analysed. This provides a framework for exploring the nature of the power relations that exist between the two 'sectors' at a broad societal level in the latter chapters of this thesis. It also provides a lens via which the more focused aspects of state-capital interactions can be observed in the implementation of government policy. Of course, implementation issues are not simply a matter of interactions with non-state agents, for the literature makes clear that there are also within-state impediments to a smooth transition from policy

aspirations to policy implementation (see for example Pressman & Wildavsky, 1973). This chapter examines two primary ways via which businesses might impact on the state namely, (1) by structuring the framework within which policy decisions are made, so as to specify not only what are regarded as legitimate fields of government intervention but also the nature of any intervention in terms of how far it champions interests that go beyond the business community; and (2) by affecting the implementation of government interventions, so as to impact how laws or regulations are manifested in real outcomes. The chapter, moreover, discusses the theoretical and conceptual underpinnings of the environmental impact assessment (EIA), as well as the policy making process.

Chapter three, which presents the research methodology, explains the methodological framework for the empirical analysis in this thesis. The chapter also presents a detailed overview and justification of the paradigm that underpins its research methodology. The thesis is based on a qualitative research design and employs in-depth interviews as the primary inquiry strategy to gain a nuanced and in-depth understanding of EIA practices and the resultant impacts on housing development in the Thai context. To achieve methodological triangulation, the study further relies on secondary data from documents concerning the operations, activities and concepts of the EIA process. The imperative of in-depth information on EIA processes and their outcomes also informs the decision to carry out interviews with a wide range of stakeholders which is further explained in the chapter. The interview guide including evaluation questions which were designed to support the data collection process is additionally delineated. The chapter also explains the qualitative data analysis process which forms the basis of the discussions in chapters 5, 6, 7 and 8.

Providing further context to the empirical investigation in the thesis, chapter four focuses on the circumstances in which new housing developments have occurred in Bangkok. This involves exploring key trends in Thailand's housing industry, alongside an exploration of the main actors and agencies in the field of private sector housing development. Alongside these private sector agents, the chapter investigates organisations that represent these companies in broader discussions with government agencies, such as all-sector business representation groups. It further draws out the existence of third sector institutions and groups that seek to represent civil society in housing plans or controversies. Chapter three also provides an articulation of government agencies operating in the housing field, and outlines their responsibilities, resources and legal frameworks for action.

Chapter five commences the empirical analysis in this thesis. It focuses on the nature of current EIA stipulations in Thailand, and questions how these came into being and how they have been adjusted over time. In effect, this chapter seeks to uncover the driving forces behind the decision of the Government of the time to introduce EIA procedures (or more accurately with the tightening of the regulations in the last decade). From the perspective of the state, the key question concerns the extent to which the views of competing interests in the housing development process are incorporated into final policy outcomes. Has the state acted as a neutral arbiter or has it favoured particular outcomes, and if the latter, why? The approach used to obtain evidence for each of these dimensions, as with the materials required for the next two chapters, is outlined in chapter three.

In chapter five the precise requirements of EIA processes in Thailand are elucidated. Chapter six investigates the nexus between and across state agencies, private developers, and civil society interest and how they are involved in implementing EIA. The chapter explores how patterns of housing development have changed, and whether such alterations offer indicators of the successful implementation of EIA provisions. Hence, this chapter identifies and explores dimensions of environmental improvement that might result from EIA impositions. These include the geographical location of new developments, the design and content in new projects, from micro to macro scales. The chapter also identifies and explores the conflict of interest caused by integration of EIA into housing development. Additional considerations that are touched on include identifying socio-economic attributes of new housing developments, since there is a need to explore whether environmental mechanisms are being put forward as a means of securing social exclusivity, as has been reported elsewhere (see for example Frieden, 1979).

Chapter six provides a backdrop for considering responses by individual developer companies to the requirements of EIA procedures. In chapter seven, these responses form the core of the analysis in this chapter. Questions are raised about perceptions of the prospect of such regulations being implemented by non-state actors. Critically, the question here is whether representatives of individual companies in the private house building sector lobbied against the introduction of the regulation, or indeed whether they have continued to lobby to have it changed in any way. The issue is not simply whether pressure was brought to bear on this question, but more importantly how effective it has been. Specifically, the aim is to uncover whether EIA procedures have altered how larger companies act (for example by changing materials, production

practices, or services for new dwellings) and how they have conditioned actions by smaller, growing companies (by not taking opportunities to build larger developments in order to exempt themselves from EIA oversight perhaps). Chapter six is concerned with the rationale and actions of builders, not simply over what they do, but also over how they seek to put pressure on government officials to lessen the impact of EIA regulations. As such, the focus for this analysis is not only building companies but also the street-level bureaucrats who seek to implement the directives of government.

Chapter eight examines the elements that impact EIA practice, thereby illuminating the present position and shortcomings of EIA in Thailand which contribute negatively to its success as a nationwide project, and undermines the ability of the government to solve issues regarding the destruction of environmental resources in the country. The chapter provides an evaluation on the ways in which Thailand's contextual factors influence its implementation of EIA and how the Thai EIA programmes are held back. The chapter also evaluates the factors that contribute negatively to EIA's success as a nationwide project and diminish the ability of the government to solve issues regarding the destruction of environmental resources in the country.

The conclusion to the thesis presents the results of the empirical analysis and their implications for discourses on state-capital relationships in Thailand. In addition, this chapter explains how the research findings of thesis offer insight into other Asian housing systems. The implications for expectations about the impact of new housing developments on the environment are further delineated. The chapter also underlines the ways in which the system can be improved to achieve the country's sustainable development goals.

CHAPTER 2 THE DEBATE

2.1 Introduction

In this chapter, the theoretical and empirical literature that is pertinent to the focus of this thesis is critically examined. The chapter focuses on the literature that emphasises the overall characteristics of business-government relationships and the implications for housing development and NICs relations. The objective of the chapter is to provide a framework for later chapters for exploring the nexus between the two sectors at a broad societal level, and more particularly as seen through the implementation of public policy. It is imperative to note that implementation issues do not simply stem from interactions with non-state agents; the literature also underscores the within-state impediments to a smooth transition from policy aspirations to policy actions (see for example Pressman & Wildavsky, 1973).

The chapter first presents pertinent theories on the distribution of political power in society, after which it examines two primary ways that businesses might impact on the state. These are: (1) by structuring the framework within which policy decisions are made, so as to specify not only what are regarded as legitimate fields of government intervention but also the nature of any such intervention in terms of how far that framework champions the specific interests of the business community (or not); and, (2) by affecting the implementation of housing interventions, so as to impact on how laws or regulations are manifested in outcomes.

2.2 The Concept of the State

The relationship between the state and business has been defined by several theories. The perspectives in the theoretical literature are polemical with respect to how the two bodies interact and influence one another (Schneider, 2004). Six primary analytical ideologies are observable in the literature; these are the Marxist, Instrumental, Pluralism, Elite, Developmental State, and Corporatism theories. These fundamental theoretical perspectives must be explicated in order to isolate their dissimilarities and demonstrate how they can be applied to interpret the complex relationships between the state and business. It is crucial to note that the analysis of each unique theoretical ideology lacks cohesion but a simultaneous in-depth examination of these theories provide the framework for investigating how business and the state are interconnected and how this connection affects policy-change. The study of each political theoretical model allows for the isolation of common themes and aids the investigative process. It further facilitates the construction of an original hypothesis. The following section explores each of these theoretical hypotheses and how they relate to the state-business relationships.

According to Weber (cited by Bendix (1977)), the modern state is an administrative and bureaucratic entity that exercises legal control over individuals within its borders. Hill & Ham (1997) expanded the definition of a state, describing it as a cluster of institutions with substantial authority over a particular area. The accepted list of state institutions includes legislatures, including parliaments and other law-makers, executive offices, bureaucratic agencies and judicial structures like law courts. These bodies span different tiers of governance, including the national, provincial and local (Hill & Ham, 1997).

The theory of state neutrality tends to portray official authorities as either bystander or referee, whose input is solely intended to guarantee the fairness of the contest (Dunleavy & O'Leary, 1987). This differs from the weathervane model, because the neutral entity does more than facilitating the formation of policy by pressure groups—it safeguards political balance and validates the exercise of power which, in effect, adjusts politics in favour of parties. In terms of state-business relationships, this framework implies that the state has a degree of independence and is not wholly dependent or responsive to business entities or other social groups. Rather, it has the goal of levelling and fairly facilitating different sets of interests. This presents some institutional challenges thus to perform this role effectively, it is imperative for the state to encourage the development of apex organisations, without restraining freedom of expression (Schneider & Maxfield, 1997; Schmitter, 1974; Bianchi, 1986).

Hill & Ham (1997) suggested two modes of assessment which have emerged within these characterisations of the modern state. In one case, the state is considered as an autonomous actor that is not obliged to undertake certain activities by public opinion. In such cases, state representatives typically make the majority of decisions without much consultation with lobby groups or the public at large. In other situations, the state is assessed primarily according to its impacts on the public or specific social segments.

One approach views the state as an independent entity, which can develop and implement public policy with little reference to the will of social pressures and lobby groups. The second approach requires an institutionalist assessment, which suggests that government policy depends on the structure of the political area, including the

quality of the relationship between the state and the business sector (Hill & Ham, 1997). Additionally, the dynamics that exist between the state and the business sector are variable and, as a result, have considerable impact on the process and implementation of national policy (Hill & Ham, 1997).

The concept of the state having autonomy is scarcely plausible in the context of contemporary politics because, as Almond (1988) highlights, the studies conducted in this vein have failed to adequately address the position of non-state actors, including politicians and their parties, lobby groups and the press. All of these forces are present in the majority of modern democracies. Additionally, within any state, there are generally differences of attitude and disputes between the bureaucracy and politicians, as well as between different elements within the bureaucracy itself. Such divisions are indicators that the state relies on a complex network of relationships and, moreover, that a country's political system is constantly in flux. The theory also treats the state-business relationship as being unidirectional. In other words, it assumes that the state has total authority. This perspective thus ignores the dialectical relationship that in real life characterises the link between the state and the business sector. Furthermore, the theory portrays the state as an inert institution, which is not susceptible to actual political dynamics (Nordlinger et al., 1988).

This research is based on the approach by Evans (1992, 2003), which conceptualises the state as a dynamic entity which is rooted in its social context and is constantly being built and rebuilt by its engagement with the rest of society. Some extant research treats the state-business relationship effectively, but by and large the existing scholarship has conceptualised the state as a homogenous entity. In response, this study expands these traditional perspectives in its assessment of the policymaking and

implementation process in Thailand, by assessing the interrelations between different forces under the state umbrella. Overall, this approach aims to provide a thorough understanding of the interplay between the state and business sectors in Thai new-housing development.

2.2.1 Marxist Theory

According to the Marxist approach, the term 'class' relates mainly to social hierarchy; the analysis of social class, class structures and reconfigurations of these structures are integral to conceptualising capitalism and modes of production or other social systems. Marx believed that the business sector belonged to the capitalist class due to its influence and authority. Marx's emphasis on this authority relates to the way in which each class faces challenges. These challenges primarily relate to the economy, as well as the way in which the economic situation of a given class is influenced by politics (Kemeny, 1992).

Marx viewed the capitalist bourgeoisie and business sector as the primary driver of the capitalist society (Kemeny, 1992). Thus, it can be suggested that the interests of the business sector should be a constant and major concern of the government. Miliband (1969) proposes that the state is comprised of actors whose beliefs and desires are in line with capital interests; that this scenario is driven by capitalists; and that state-business-relationships are subject to bias. On the other hand, Poulantzas (1969), among others, argues that state-business relationships are not subject to bias and that, therefore, the business sector is perfectly able to obtain favourable treatment from the state without the need for direct intervention.

Marxist perspectives on state-business relationships focus on the effects of politico-economic partnerships on state policy. Classical Marxist theory asserts that the state is so embedded in capitalist culture that their governmental activities are heavily influenced by business interests. When a state body must reach a political decision that may affect corporate business, Marxist theory states that any government operating in a capitalist state must make policy decisions based on the needs of the corporate industry (Causer, 1978; Heilbroner, 1985; Poulantzas, 1973; Useem, 1979; Zeitlin, 1974).

However, Marxist theorists also allow for the implementation of policy that may be opposed by particular business groups. Occasionally, a state government must work in favour of the class as a whole despite opposition from certain corporate sectors (O'Connor, 1973; Offe, 1975). They also acknowledge that democratic policy will often lead to social disunity and thus the state must put measures in place to prevent the exploitation of corporate power for personal gain. Thus the state must act on behalf of the capitalist class as a whole, and not specific capitalists. A variant of Marxist theory, instrumental theory, focuses on the nature of the state. Sweezy (1942) interprets the Marxist definition as suggesting that the state acts as an instrument utilised by the dominant ruling class to stabilise and reinforce the social structure. The capitalist state system acts in favour of the business elite in a capitalist society as it is directly subservient to that class. The interaction between the ruling class and the state is facilitated by networking and social fraternisation, and the ruling class leverages the state to wield power over society as a whole (Hay, 2006). This interpretation expounds the pre-eminence of agency over structure, in other words, the dominance of ruling forces over the governing of the state.

2.2.2 Pluralism

Pluralism has been developed to fill some of the gaps that have not been filled by Marxist theory, and to contest some of its main statements. Pluralists argue against the notion that there are non-biased elements of the proletarian and capitalist classes, as suggested by Marxists. Bentley (1908) argues that groups are established through individual, subjective activity. In turn, this results in the convergence of the interests and desires of various groups, due to the effect of each group trying to sway the other. Therefore, he argues that politics are shaped by a constant 'tug-of-war' between various relevant interest groups (Bentley, 1908).

Another similar argument against Marxism is presented by Truman (1951) who believes that discord and attempts to influence are eased when groups form similar interests and goals. Furthermore, Truman's theory accepts the multifaceted nature of society, as shown through the variety of groups in existence, and suggests that these interest groups are likely to become established when their individual interests are linked to politics. Emerging groups, consequently, attempt to intervene in decision-making processes to meet their collective goals (Truman, 1951).

Pluralists such as Dahl (1956) and Truman (1971) believe that it is an individual's behaviour (which can be identified using interest groups) that identifies a society. Pluralists are of the view that various groups and parties with divergent interests are connected to the expression of state-business relationships. These divergent interests coupled with the pluralist interpretation of society, indicates that the balance between parties and groups oscillates with each side gaining greater favour at certain times (Murray & McMillan, 1983). Thus, Schmitter (1974) conceptualises pluralism as

defined by equality in access, competition, and state responsiveness or lack of control. All interest groups have the same level of influence, and the state has equal relations with all groups.

Lobbying is a means of using influence to pressure political decision makers. Bentley further points out that pressure can take many forms, both visible and invisible. For example, politicians can be confronted by visible pressure (in the form of actions) or invisible pressures (in the form of threat of actions) (Bentley, 1908).

Accordingly, an interest group is more powerful if it is able to apply pressure. Such ability is a by-product of the group's nature and size, as well as its various resources, such as finances, information, and social status. A group's ability to apply pressure is also affected by its ability to access government officials, and by its level of internal organisation (as well as the organisation of the government it is pressuring). When examining interest group politics, the pluralist tradition places emphasis on the idea of lobbying as pressure politics (Bentley, 1908).

Though pluralists do not argue that all groups are equal, they do argue that democratic societies are characterised by a wide distribution of power and resources that can be used to articulate unfairness to government. The singular domination of one interest group is held at bay by a variety of factors including overlapping membership, a large number of groups, a large number of methods for directing the government, and a government that prioritises consultation (McLennan, 1989).

2.2.3 Elite Theory

Pluralists accept the fact that if elite corporations are able to group together or work in harmony, there is a potential that they could become major political influencers. However, pluralists also maintain that if elites become segregated through friction and disagreements, this creates a foundation for capitalist regions to adopt polyarchal pluralism (Dahl, 1989). In terms of business, Mizruchi & Konig (1986) have suggested that certain issues, such as the quantity of purchases between companies, and a company's position in the market, have an impact on the political tactics behind corporate harmony. For example, it has been argued that companies are able to gain a vast amount of political authority once the company is operating cohesively (Vogel, 1989), and that a company's ability to become harmonious and operate is a key driver of the company's political success (Dahl, 1958). Bernhagen (2007) claims that certain elements of any given market result in continuous rivalry between companies, and that this leads to pluralists finding comfort in the notion that harmony in the corporate world is uncommon. Additionally, pluralists believe that the authority that comes with corporate harmony continuously evolves. This means that when corporate harmony is low, the non-corporate aims can be realised more easily.

In contrast, elitists believe in the importance of a number of unity-promoting factors; though they do also accept the predisposition for segregation in the business world (Bernhagen, 2007). For example, it is possible to unite group goals, and encourage social and political engagement, through clubs, associations, boards and directorates that work together. Bearden & Mintz (1987) have proposed that tools such as these can assist the corporate world in avoiding segregation, conflict and rivalry between

classes. Domhoff (1998) further adds that this has led to capitalist society rising above their own personal goals to support the aims of the class as a whole.

Moore (1979) suggests that elites are not, for the most part, segregated, and that elite corporations have the ability to coexist harmoniously. Elite corporations can work together to achieve collective interests due to the nature and mechanics of the elite network (Moore, 1979). It is important to however underscore, according to Moore (1979), that elite networks exist based on the desire to tackle certain problems as opposed to the idea that members have some sort of innate right to join. Moore's (1979) study finds no influence of class and thus it refutes the findings of Domhoff, Hunter & Mills (Moore, 1979). For example, during the mid-20th century, scholars argued that collectives were able to influence government sectors as per their own agendas. Therefore, this also meant that elite groups could enforce change (Moore, 1979). Many scholars, including Redford (1969), Sayre & Kaufman (1965), have suggested that elite groups within the economy are able to move forward by generating 'iron triangles' (also known as policy subsystems and islands of functional power), which are derived by cultivating interactions and partnerships with government sectors.

2.2.4 Corporatism and Neo-Corporatism

Corporatism refers to the practice of policy-making and how it is a direct result of networking between influential social interest groups and state officials (Cawson, 1986). Corporations or social organisations are permitted to contribute in policy-making sessions and the state can often offer private companies an almost public status. There are several concepts that are crucial in corporatist theory and these

include integrity, validity and the institutionalisation of company organisations. These concepts can be applied to an interest group's relationship with the state and can often assist in analysing the structure of the partnership and its impact on both parties (Wiarda, 1997). Schmitter (1974) has defined corporatism as the selection of a limited number of interest groups that are considered representatives of their various social groups. These interest representatives are placed in control of their group's demands and the state offers them 'representational monopolies' under the condition that they follow procedure in choosing participants, voicing concerns, and expressing the demands or needs of their specific social groups (Schmitter, 1974, p.93-94).

In light of this definition, it seems obvious that throughout the policy-making process, the state assumes a preeminent role (Cawson, 1982). Conversely, in a corporatist structure, policy changes are established by the state in collaboration with relevant interest groups that have been permitted to participate in policy negotiations by state officials. As a direct antithesis to classical pluralist philosophies, corporate interest groups are known to the state and governed by state laws. In a sense, corporatism has led to interest groups assuming a powerful role in society and essentially forming part of the state (Cawson, 1986).

To regulate corporatist group's participation in policy-making negotiations, the government has established procedures whereby a limited number of interest groups are selected based on categories of distinct social interest (Grant & Sargent, 1987). These distinctions may refer to religious beliefs, ethnicity, class or business affiliations amongst others. Each of these unique social interests are allocated an interest group which is responsible for acting as an intermediary between society and the state officials (Cawson, 1983).

Many corporate theorists interpret this practice as self-serving from the state's perspective as they assume full control of society while convincing companies to operate in their favour without going so far as to initiate the complete nationalisation of industry (Cox & O'Sullivan, 1988; Lehmbruch & Schmitter, 1982; Miller, 1976; Pahl & Winkler, 1975; Rea & McLeod, 1976; Schmitter & Lehmbruch, 1979). Cawson (1982) claims that the behaviour of the state towards the private sector undermines the traditional divisions between the public and private spheres. The true nature of corporatism as a concept can be encapsulated by three elements which include intervention, intermediation (the relationships that are developed through negotiations between the state and the various interest groups) and incorporation (a consequence of interactions between interest groups and the state whereby organised interests become more intertwined with the state) (Grant & Sargent, 1987).

Corporatist theorists agree with Marxist theorists in alluding to the phenomenon arising from society's transition into a capitalist state whereby company executives seek stable conditions with few business rivals, state officials seek to prevent dramatic escalations in price and employment numbers, and labourers seek regular secure employment. Consequently, society's transition towards capitalism will lead to all levels of society reluctantly allowing a high level of economic state intrusion (Cawson, 1986).

Different types of Corporatism

Wiarda & Skelley (1997, 2007) divide corporatism into three basic types according to the level of state involvement: (1) a strictly autocratic state; (2) limited interest representation by organisations that are acknowledged and controlled by the

government; and (3) corporatist groups that become assimilated into the state and work alongside them.

In the first category, there is a high level of state involvement that can sometimes be viewed as dictatorial. This type of corporatism is known as 'historical' or 'traditional' and is usually practiced in regions with communally-focused societies. In such areas, corporate groups are often formed naturally based on heritage, ethnicity, family and other similar dimensions (Howard, 1997; Howard & Skelley, 2007).

The second category is similar to traditional corporatism but with a few important distinctions. In these cases, the state is autocratic and is usually formed on the basis of a military framework. As the state is so authoritative and the society appears to be largely self-organised, state officials are often capable of categorising interest groups into distinct societal divisions. The connection between these interest groups and the state is generally referred to as 'top-down', a hierarchical division of society, which usually indicates that the state is responsible for policy changes; they may take the interests of social groups into account but once they have arrived at a final decision, the interest groups must agree with the state as no further negotiation is permitted. Furthermore, the state uses interest groups to coordinate communication between state and society as they relay information on policy changes and assist the state in putting them into practice (Wiarda, 1997; Wiarda & Skelley, 2007).

The final category, often known as neo-corporatism, involves participatory decision-making procedures involving both state officials and interest groups. The government often consults with such groups before a final decision on policy change is made and in theory, this negotiation process indicates that the interests of society, as presented

by the interest groups, are factored into the state's final decision. Neo-corporatism is therefore defined by the transparency of its decision-making process, a process whereby interest groups participate fully in negotiations and adopt a fundamental role where mutual cooperation is the primary form of interaction. This system is in obvious contrast to more competitive pluralist methods whereby the diverse network of interest groups all strives to be considered by those responsible for policy changes. Neo-corporatism cannot be defined as 'top-down'; indeed, in most neo-corporatist cases, the state and interest groups establish a partnership and work together to negotiate policy change (Wiarda, 1997; Wiarda & Skelley, 2007).

The neo-corporatist system is usually adopted in Europe (Wiarda, 1997; Wiarda & Skelley, 2007); however, in developing countries, state corporatism was most common until the 1980s. The rise of democracy in these regions has however instigated a slow transition towards more neo-corporate systems (Howard J. Wiarda, 1997). For instance, during the 1960s and the 1970s, Chile, Argentina and Brazil epitomised state corporatist practice (Schmitter, 1971, 1972, 1975). Traditional corporatism is more common in Asia, particularly before the 1990's. Asian societies tend to be quite communal in nature which explains how such traditional forms of corporatism operated effectively (Boyd & Ngo, 2005).

In many Asian nations such as South Korea and Taiwan during the 1960s and 1970s, governmental control evolved into something similar to state corporatism. The state was autocratic throughout these nations and strove to regulate social development and the representation of interest groups (Boyd & Ngo, 2005). Corporate and labour interests were largely under state control and a very select number of interest groups were acknowledged by the state. Society and the government had a strict hierarchical

relationship and governmental control was dictatorial. Social groups were often pressured into supporting their policy-making decisions (Schneider, 2004). Despite this, however, the state did communicate with corporatist groups in relation to issues of economic policy. In South Korea, for example, the state formed a committee which was composed of state officials along with nominated representatives of labour, corporate and financial industries. This committee was devised in order to meet and explore issues of economic significance and allowed for the diffusion of information between the government and corporatist groups. Business and labour representatives discussed their needs with the state which then used this situation to their advantage by securing the support of representatives present at discussions, and instructing them to endorse their policy measures according to their respective interest groups (Boyd & Ngo, 2005; Hermes & Schilder, 1997).

2.2.5 Developmental State Theory

NICs, which are concentrated in East Asia and Latin America, tend to demonstrate a variety of economic and political structures that differ from the norms of the developed liberal democracies of Western Europe and North America (Boyd & Ngo, 2005). In Latin America, the dependent capitalist state is the defining trend, whereas East Asia is marked by the developmental state (Woo-Cumings, 1999).

The theory of developmental state applied to East Asian states has been extensively elucidated by Meredith Woo-Cummings (1999). Ideologically, these NICs often occupy the middle ground between a free market and a centrally-planned economy. This is described as a "plan-rational" capitalist system, which unites the guiding role of the state with widespread private ownership (Woo-Cummings, 1992, p.2). The

theories of the developmental state are characterised as not being fully capitalist or socialist, but rather negotiating between the two. A developmental state, as portrayed by Loriaux (1999), posits a firm ethical goal of using the authority of the state to direct investment in order to promote a more unified economic atmosphere (Loriaux cited in Woo-Cumings, 1999). A developmental state does significantly intervene in the economic and social norms of the country because, as Chang (1999) emphasises, economic advances require the construction of a state that can normalise the political processes that encourage sustainable growth.

In the 1970s and 1980s, many South American countries, like Chile and Brazil and Asian countries, like South Korea, Taiwan, Singapore and Hong Kong, were able to reach and maintain extended periods of economic growth of over 5 percent each year (Schneider, 2004; Boyd & Ngo, 2005). It is often questioned whether this period of sustained growth was a direct result of state corporatism during that timeframe. Krueger (Krueger, 1991, 1993) addresses the issues regarding strong state interference and posits that liberal trade policies resulted in the markedly increased growth rates in many Asian countries. Conversely, Amsden (1989) and Wade (1990) believe that this period of economic growth would not have occurred without the state's intervention. Furthermore, Wiarda (1997) opines that it was easy for the state to remain in control for the duration of this period as economies were thriving under their policies at the time. The increased wealth and rapid developments in technology during this period enabled private individuals and groups to impinge on the policy-making process, with the government's approach moving from authoritative to more co-operative. This demonstrates that economic development can have a tangible effect on the political mode, shifting it from an authoritative state corporatism system to a

less controlling system based on paradigms such as neo-corporatism or pluralism. Similar changes in the role and structure of governments also occurred in several Latin American and Asian nations in the late 1980s and 1990s, leading to a shift from state control towards democracy, allowing interest groups to gain more power under reduced government controls (Corrales & Cisneros, 1999; Kingstone, 1998; Perez-Aleman, 2003; Schneider, 2004).

Developmental state thinking represents a break from neo-liberal economics, because of its acceptance of state involvement. Additionally, Johnson (1999) highlights the microeconomic benefits of the model, in terms of the collaboration between business entities and the state, whereby the private sector becomes invested in the process of development. The significant role of private enterprise demonstrates that the developmental state is intrinsically capitalist (Johnson, 1999).

2.3 The Concept of Power

The power relations that govern relationships between key actors such as the public sector, private sector and civil society, is imperative for gaining nuanced insight into specific development ideologies (Kam, 1999). Planning mechanisms in turn, are further determined by the development ideologies that govern a state, the level of state involvement, and the availability of resources. Civil society and private sector interests further impinge on the efficacy of planning mechanisms.

Power as a concept generally refers to the ability of one social group to exert control over another. With this mind, power reveals itself in the interaction between several social groups and is not necessarily an attribute of one particular person or

organisation. The relationship between several diverse social groups is usually disproportionate with one group exerting control over the others (Schutz, 1999).

Power in political terms is explored by Dahl (1957) who posits that the relationship is 'one-dimensional' as the dominant group has the ability to convince the subservient group to act in way that they would not otherwise choose to without coercion (Dahl, 1957, p.202-203) . This concept of predetermined action is fundamental to this notion of power in that it is incorrect to assume that a dominant group will coerce a subservient group to behave in particular way by virtue of its dominant position. Analyses of political power are usually based on two paradigms. They either tend to view political power as a matter of 'intentional' domination, or as a problem of 'unintentional' domination (Stewart, 2000).

2.3.1 Intentional Domination

Intentional domination focuses on types of corporate political action, which Getz (1997) describes as a company's procurement of action (or inaction) from public leaders, as a way of emerging into the political landscape. Within this topic, business is conceptualised as an interest group, and researchers investigating this field have explored policy networks, petitioning and special interest politics. Wright (1996) focuses on the assets available and required for business and its interest groups to influence policy, including campaigns and political party funding. Page, Shapiro, & Dempsey (1987) have studied the way in which these resources assist the business sector to influence public perspectives of certain issues. Kang (2002) on the other hand, has examined the unethical underbelly of the situation. Mills (1956) and Domhoff (1998) have explored the relationship between business leaders and political

officials. Another element is the occurrence of serious political disasters and how business has become involved in these issues. Block (1977) suggests that when faced with oppositional policies, the business sector has in the past gone to the extent of becoming involved in violent protests and the overturning of the government, such as the case of armed takeovers. The latter scenario occurred in Thailand when the Royal Thai Army staged a coup against the elected caretaker government of Prime Minister Thaksin Shinawatra in September 2006.

Keim & Zeithaml (1986) acquiesce to this propositions since certain companies avoid political action based on the estimation that the losses involved in participating will be higher than the gains acquired. Olson (1965) further argues that this is not only the case for solo enterprises, but also for groups. Furthermore, Morton & Cameron (1992) point out that policy-makers can only react in the case of corporate political action. For example, in considering elections, policy-makers should be aware that bowing to the demands of large corporations could be unlikely to please supporters, which could lose public votes.

2.3.2 Unintentional Domination

The unintentional model of political intervention arises from an unusual collaboration between neoclassical economic theory and the Marxist approach to capitalism and the state. This model focuses on the institutional restrictions placed on policy-makers, and how this influences their ability to formulate policy. Lindblom (1977) referred to this model as being the business sector's 'structurally privileged position. Block (1977) termed it the business confidence element and Przeworski & Wallerstein (1988) referred to it as the state's 'structural dependence' on the economy. The unintentional

interference model suggests that joblessness, lower tax income, slow development and a lack of benefits in investing funds has arisen due to capitalist greed. Therefore, policy-making officials attempt to sidestep policies that alter the business sector's profitability, based on concerns about the repercussions mentioned previously, as well as concerns over the ways in which such policies could impact them financially and electorally. It can be said that policy-makers, thus, focus on promoting business confidence at all times (Przeworski & Wallerstein, 1988).

Przeworski & Wallerstein (1988) argue that because of this, the business sector is able to secure preferential treatment during the policy-making and implementation process without the need for direct involvement in political action. If this concept has some validity, it is not difficult to understand why this makes democracy a challenge, since democracy dictates that political parties should be segregated enough to offer voters a number of alternatives. Furthermore, Budge & Bara (2001) add that democracy entails the chosen political party keeping its word and carrying out its projected aims and objectives.

Although there seems to be a number of truths to the institutional authority approach, this theory is not without its shortfalls. For example, if the approach was entirely true, policies would remain the same over prolonged periods; serving the interests of the business sector. On the other hand, Mitchell (1997) and Smith (2000) argue that there are many examples of the business sector not being able to control political policy. Furthermore, it is not possible to consider the omnipresence of politics in the business sector when following structural authority theories. The question is why capitalists would invest in political activity if they were already being served by the political arena. Additionally, due to a range of core methodological issues, it is difficult to

draw conclusions from previous studies on the ways in which public policy is driven by the business sector. Although it is possible to state that business does possess structural dominance, it is more challenging to prove this than to prove more overt actions such as petitioning or campaign funding (Mitchell, 1997).

2.3.3 Power Characteristics of the Thai State

Thailand is a constitutional monarchy, under which the King serves as the Head of State and wields considerable moral authority. Under the new constitution, the King has been further ascribed new powers which are almost exclusively ceremonial in nature and exercised only with the consent of the current political leadership (ADB, 1999). Thailand is a unitary state and thus, the absolute and overall power of governance is vested in the central government. It is the central government that decides how much power and authority may be relegated to organisations within and outside Bangkok (ADB, 1999).

Thai society is relatively simple with the interests of government and the private sector dominating those of the civil society. Up until 2001, a prevailing system of clientelism or 'money politics' co-opted the policymaking process, leading to the marginalisation of inequality within policy discourses. Thailand's political climate has been defined by the existence of various political parties, necessitating the formation of coalition governments during elections. These coalition governments have historically been weak and short-lived and further, these governments have not exhibited a clear policy focus, and have often leveraged local handouts to consolidate their position. This form of politics has largely excluded the majority and kept

representative institutions weak, enabling the military and monarchy to dominate (Hewison, 2014).

Scholars such as Boyle (1998) have argued that status, hierarchy, and power are inextricably linked to a strong desire for paternalistic authority and a compulsion for dependency and loyalty to a group. Boyle's (1998) assertions are particularly evident in Thai society which is strongly hierarchal in nature so much so, that this structure permeates into its social, political and bureaucratic institutions. Thais are acutely aware of their relative place within this hierarchy and of their status vis-a`-vis others. Concomitantly, deference is commonly expected by and granted to people of higher status. In return for the assurance of deference from subordinates, leaders perform the roles expected of the powerful (Boyle, 1998). In government, lower-ranking officials have difficulty standing up to higher-ranking officials, even outside of the ministry within which they belong, and special requests from higher authorities are difficult to decline even if they possess underlying ulterior motives (Vichit-Vadakan, 1989).

2.4 Characteristics of The Thai State

The genesis of the Thai state is rooted in the 13th Century, commencing with the reign of King Chulalongkorn between1868 and 1910. King Chulalongkorn is widely recognised as the purveyor of the modern Thai state due to his implementation of several reforms such as the formalisation of the Civil Service Act in 1928. The subsequent monarchy of King Rama VII, was dismantled following the staging of a coup in 1932. Notably during this period, Thailand's first constitution was established after which its first elections occurred the subsequent year. Despite the implementation of democratic reforms, Thailand experienced political instability

following another coup in 1933. Between 1933 and 1991, Thailand experienced political instability and during this period, control over the state swung between the army (1933-1944) and civilian rule (1944-48). Between 1948 and 1991, Thailand experienced oscillating periods of civilian and military rule (ADB, 1999).

Under both civilian and military rule, state-owned enterprise experienced several privileges due to the existence of patronage networks. These privileges were further expanded as the state became increasingly involved in the economy in the 1930s and onwards. This enabled political elites to divert state resources for their private use (ADB, 1999). The role of the elite was further strengthened in the 1970s, due to the increasing importance ascribed to business interests in the House of Representatives. These changes were occurring alongside the emergence and growth of civil society and therefore, dissention in the form of student protests became increasingly common (ADB, 1999). In the mid 1900s, Thailand experienced economic malaise although this improved by the mid 1980s as a result of effective economic policies implemented by the semi-democratic government. This economic growth was concomitant with increased levels of foreign direct investment into the country, especially under the government of the Prime Minister Chatchai Choonhavan who promoted the business sector extensively. It is worthy to note that the majority of ministers within this government had business interests in the real-estate sector and auxiliary sectors in connection to it (discussed in chapter 7). The transition to civilian rule meant that this government was able to exert significant influence on policy (Sheng, 2002) in ways that were directly beneficial to them.

Allegations of tax evasion and corruption have historically plagued Thailand's civilian governments, the most notable being against the government of Thaksin

Shinawatra, elected in 2001 which instigated protests in Bangkok between 2005 and 2006, eventually culminating in a coup. Between late 2006 and 2007, Thailand was once again under military rule. The period between 2006 and 2011 was characterised by extensive political unrest. The military again seized power in 2014 after months of protest against the former Prime Minister, Yingluck Shinawatra (Global Property Guide, 2010). The Thai political system has often relied on the military to restore order and protect the monarchy, however akin to civil politicians, they have also leveraged their privileged position to advance their personal interests.

The regulatory framework of the Thai state was not popular among neoliberals, due to the belief that the Thai state's involvement in the economy slowed growth, which would have been expedited by market-oriented policies (Christensen et al., 1993). Thailand does not align with the theory of the developmental state that generally applies to Asian capitalist states. Rather, Thailand's growth is seen to have been powered by a network of non-state institutions, including commercial banks and business groups (Doner & Ramsay, 1997). As a result, the Thai state was considered to be somewhat disjointed and lacking in strength, particularly when contrasted with the traditional Asian developmental theory. However, both parties concur that economic progress in Thailand can, to an extent, be attributed to the technocratic control over fiscal and economic bodies, which shielded them from patronage (Doner & Hawes, 1995).

Evans (1995) suggests that Thailand is neither a forceful nor a developmental state, but falls midway along the spectrum that ranges from the predatory to the developmental structure. As such, Thailand is not as strong as East Asian nations such as South Korea and Taiwan, but it is not as weak a state as the Philippines. Thailand

did not have the strength of a developmental state like Taiwan, but it did have sufficient strength to drive the economy forward from 1951 to 1995, when the country was ruled by military dictators and policy was determined by technocrats (Apichat, 2002; Satitniramai, 2007). However, from the 1980s onwards the coincidence of rapid economic growth and democratisation caused the state to waver and diminished the influence of the technocrats. This fostered the economic crisis of 1997, indicating that multiple changes can cause state weakness, particularly by undermining effective bureaucrats (Apichat, 2002; Satitniramai, 2007).

For instance, the state did increase its strength in politics and administration, while Thaksin and the Thai Rak Thai Party (TRT)[3] held power from 2001 to 2006, but the party's promotion of a developmental state has not been a complete success. State structures are still ineffective and state institutions are divided, allowing industrial policy to be hijacked by TRT associates and cronies. Admittedly, the 2006 coup suddenly halted the move towards a developmental economy, which undermined the TRT's efforts (Satitniramai, 2007).

2.4.1 State and Business Relationships in Thailand

Collaboration between governance agencies in the real estate sector is crucial for achieving effective urban governance. Collaboration between the state, local

[3] Under Thaksin, a liberal framework was created that empowered capitalists within the state, but this should not be viewed overly positively (Satitniramai, 2007). Bellin (2000) highlights that capitalists in "late-developing" political environments generally prioritise their own commercial interests and only defend liberal politics if it bolsters those interests (Bellin, 2000).

government, the private sector and civil society is especially imperative. State-business relationships is shaped by a number of factors, including the regulations and agreements between the two actors, their structural nature, and the extent to which they share common aims and philosophies (Chingaipe & Leftwich, 2007). Laothamatas (1994) points out that prior to the 1960s, Thailand's private sector was neither strong nor sizeable, and was in need of serious organisation. In this scenario, it is possible for the state to dictate political aims. However, Moon (1994) suggests that once a country's private sector begins to improve itself, as it did in Thailand following the events of the 1980s, it is possible to achieve greater equilibrium between business and the state, due to a desire for increased autonomy or authority.

Previous research implies that there has been a significant evolution of the impact of business on the state. Following the overturning of Thailand's royal power in 1932, Thailand became bound to a political environment that elected leaders based on government interests (Riggs, 1966). After the overthrowing of the Thai monarchy, the nation's armed forces led the country through a time regarded as the 'bureaucratic polity' era (Riggs, 1966). Although the environment was oppressive, and thought the business sector somewhat feared clashing with the government, business maintained an unlikely level of independence from the state during this period (Riggs, 1966).

Further research suggests that, because of this, Thailand's previous business sector entered a clash with the Thai government. This is largely due to Thailand's great proportion of Chinese businessmen, leading Thailand's previous business sector to appear foreign to the unwelcoming and patriotic state policy of the time (Skinner, 1958). Furthermore, Skinner (1958) adds that Thailand's Chinese businessmen (Sino-Thai) began to engage in interactions with leading Thai actors, since these

relationships were crucial for receiving the required documentation to conduct business in Thailand. Additionally, business relationships provided Chinese businessmen with certain preferential treatment and relative protection from interference from the law (Skinner, 1958).

In order to build these business links and obtain long-term assistance from Thai government actors, Skinner (1958) proposes that the Chinese people within the business sector were able to identify the names of influential Thai agents on the board of directors for various firms. Additionally, existing firms merged with other firms to create new companies, which involved a mutually-beneficial arrangement of Thai preferential treatment and benefits, in exchange for Chinese funding and business acumen. Furthermore, a number of Chinese businessmen became managers of Thai corporations, providing that they had Thai citizenship (Skinner, 1958).

It can be said that during the 40-year-period following the Siamese Revolution (see Table 1), Thailand's state-business relationships engendered a situation in which dominant and subordinate actors (i.e. patrons and clients) swapped assistance with the provision of security (Suriyamongkol & Guyot, 1985). During this time, it has been suggested that the business sector worked in accordance with the wishes of powerful government agents, thus the ability of groups from the business sector to change government policy was miniscule. If the business community had any influence on government policy, it was clientelistic in nature, spontaneous and unofficial (Suriyamongkol & Guyot, 1985).

Table 1 Historical Development of Thai politics in the Context of Politics and Business Relations

Year	Politics	Economy
Before 1932	Absolute monarchy – Thai feudal system	Self-sufficient economy + Primitive capitalism based on agricultural society
	Absolute monarchy – Thai feudal system	Primitive capitalism based on agricultural society
1932	End of absolute monarchy – Introduction of a constitutional monarchy following the change to democracy with parliamentary government.	Primitive capitalism based on agricultural society
1943	Bureaucratic polity - first post-WWII military coup. The military retains power continuously until 1973.	Full-fledged capitalism + import-substitution industrialisation
1973	Semi-democracy	Export-oriented industrialisation + economic globalisation in trade
1988	Firm parliamentary politics	Fully participated in economic globalisation in trade and finance
1997	Economic crisis in Thailand and East Asian + Political reform through 1997 Constitution	Fully participated in economic globalisation in trade and finance
2001	Authoritarian populism	Fully participated in economic globalisation in trade and finance
2006	Political crisis (2006 Coup)	Fully participated in economic globalisation in trade and finance
2014	Political crisis (2014 Coup)	Fully participated in economic globalisation in trade and finance

Source: Tangsupvattana (2011); BBC (2017)

Laothamatas (1988) argued that Thailand's pre-1988 government system, which was semi-democratic in nature, has caused the business sector to become a more significant manipulator of political policy (see Jumbala, 1974). One of the reasons for this is that businesses are becoming directly involved in Thailand's parliamentary system and election processes. Further, they are joining the Joint Public-Private Consultative Committees (JPPCCs), voting for political parties, and undertaking collective lobbying actions (Laothamatas, 1988).

The JPPCC was formed in 1981, on the basis of recognising Thailand's private business sector and its power to spark change. Members included the Association of Thai Industries, the Thai Chamber of Commerce, the Thai Banker's Association, and other influential housing building associations including; the Thai Condominium Association, Thai Real Estate Association, and Housing Business Association etc. One of the JPPCC's most influential activities was its use as a medium for expressing the interests of the business sector; offering an escape from Thailand's corrupted institutions and relationships (Laothamatas, 1994; Muscat, 1994). The demise of the JPPCC began in 1988, when Thailand's new Chatichai government placed a higher emphasis on building relationships with key business figures, as per the concept of clientelism (Doner & Ramsay, 1997). Concurrently, it is claimed that unethical political exchanges and activities became rife in Thailand (Haggard & Kaufman, 1995). Nonetheless, the business associations of Thailand have managed to maintain their position as key representatives of the private business sector (Doner & Ramsay, 1997).

The current status of Thai business is non-bureaucratic, since business can influence the cabinet, the parliament, political parties, funding and employment policies, among others. This new semi-democratic regime is unlike Thailand's former status of bureaucracy, partly because it incorporates free elections, competitive parties and a house of parliament that has been elected. Further, it involves better dissemination of political authority. As a result, public policy-making can now be influenced by groups other than the royal power, based on the political environment in Thailand (Laothamatas, 1994).

Thailand differs from Korea and Taiwan in that the Thai government possesses comparatively better government organisations, as well as the ability to offer more protection from business and other interest groups that attempt to influence decision-making or public opinion (MacIntyre, 1990). That notwithstanding, Thailand has largely depended upon its controlling and somewhat oppressive government to encourage business growth. In doing so, it has managed to achieve rapid industrialisation despite its sectors' lack of autonomous strength (Lucas, 1997; Robison et al., 2005).

2.4.2 Role of Thai Civil Society and Its Relationship to the state and Business

Civil society is a crucial component of ensuring effective governance. In Thailand, social movements and the media have played a regulatory role in Thailand's political history by assuming a strong activist stance. Thai civil society has been very intentional about revealing instances of corruption within the political structure (Pongsapich & Kataleeradabhan, 1994). As a result of their activist stance, civil society organisations have often been conceptualised as unfriendly in terms of their engagement with the state. Overtime, economic growth in Thailand led to the withdrawal of development-focused civil society organisations and those that remained had tenuous links with government and therefore played a minimal role in national development (ADB, 2011). Thailand has experienced a growth in social movements which have become increasingly viewed as a tool for legitimately expressing grievances against the state. Social movements in Thailand have mostly been predicated on subjects such as poverty, inequality, and other development-related issues (Simpson, 2015). Along these lines, studies conducted by scholars such

as Albritton & Burekul (2002) have revealed that civil society participation is perpetuating inclinations towards the key political and social institutions of the state. Thus, while contestations between the state and civil society exist in Thailand, civil society does play an important role in encouraging public participation.

2.5 The Corporatist Approach in the Thai Context

Thai state patronage has had a significant impact on the development of business entities in Thailand's quasi-democratic period. The Bank of Thailand's decision to establish the JPPCCs demonstrates the desire for a more formal relationship between the executives in both fields. The topic for discussion that emerges is whether Thailand is developing its own model of state corporatism, under which businesses would act independently of bureaucrats and would have the capacity to hold government to account. Analysts of Thailand's political system identify many corporatist strands (Laothamatas, 1988). Chenvidyakarn (1979) highlights the fact that according to the Trade Association Act and the Chamber of Commerce Act (1966), the state has control over licensing and registration of business entities across the country and can scrutinise the irregularities or histories of corporate individuals (Chenvidyakarn, 1979). Registrars selected by the government can additionally change the regulations of a company before allowing it to officially register. The Board of Trade (BOT), which is comprised of representatives of the Thai Chamber of Commerce (TCC), foreign-national chambers of commerce, trade associations, state companies and cooperatives, is legally empowered to represent the economic sector to the government. The same law requires the existence of a single chamber of commerce, whose president will be the de facto head of the Board of Trade. There are regional chambers of commerce, but each province can only have a single chamber

and it must be registered with the Thai Chamber (Chenvidyakarn, 1979). In hardline corporatist states however, every business-owner and company is obliged to register with a trade association, which is not the case in Thailand, nor are associations required to align themselves with umbrella organisations. Any number of trade organisations can establish themselves, within specific industries and in the country at large (Laothamatas, 1988).

However, Thailand's governance has changed repeatedly in the decades since these two acts were passed and the nature of public-private sector engagement is no longer consistent with the law. Laothamatas (1988) points out that in opposition to the decree of the Chamber of Commerce Act, the Board of Trade is no longer the economic apex organisation and most trade organisations have opted-out of membership. Laothamatas (1988) also explains that the Thai Banks and the Association of Thai Industry have become as powerful, if not more so, than the BOT and the TCC. Bankers and industrialists generally consider these organisations as their governing bodies, rather than the BOT or the TCC (Laothamatas, 1988).

Laothamatas (1988) further demonstrates that because the government recognises the JPPCC as the core avenue for dialogue between the state and the private sector, that it has granted unique importance to the associations comprising the JPPCC, despite that fact that the Thai Bankers and the Association of Thai Industries are ordinary trade associations. The essential observation is that the state has tolerated the rise of informal controlling bodies and competition between a number of different associations.

The Thai government is entitled by law to interfere with the registration of companies, the appointment of executives and the bylaws of corporations, but it generally chooses not to exercise this authority. Many trade associations do not even submit the details of their activities, the identities of their leaders, their financial reports or even their locations to the Department of Internal Trade which, in theory, has oversight of their practices (Laothamatas, 1988).

When considering the economic, social and political reform of the 1970s, corporatism seems to provide a good foundation for understanding the evolving nature of the state and the business sector for this study. Corporatism emphasises how much independence business institutions have in their interaction with the state; the results of the relationship in terms of policy decision-making; and the balance of power within the state-business relationship. Therefore, corporatism is a particularly appropriate approach to consider in this study, in terms of addressing Thailand and Bangkok's impact on policy formulation and application.

2.6 Environmental Impact Assessment (EIA): Theoretical Underpinnings

In order to promote sustainable development, decision-making can be enhanced through the use of EIAs at the planning stage. Various scholars, including Wood (1995), Lohani & Halm (1987), and Munn (1979), report that during the 1970s and 1980s, developing and developed countries alike embraced the concept of EIA. Over the last couple of decades, many have begun to consider EIA as a key component in the assimilation of environmental issues and planning-based decision-making. Wood (1995), Sadler (1995), and Ortolan et al. (1987) explain that despite this, EIA

implementation differs widely in terms of efficiency, usefulness and outcome due to the diversity of national planning and development project criteria, demand and setting.

The UN (1991) argues that attempting to identify a single globally-relevant EIA model is a challenging task due to the number of different planning systems in existence. Consequently, countries around the globe are adopting different guidelines and definitions of EIA implementation. Furthermore, the first EIA process – launched in the US – was not intended to serve as a global model of assessment. For this reason, as Leu et al. (1996) and the UN (1991) explain, there have been many challenges involved in the integration of EIA practice into new planning systems. The United Nations Economic Commission for Europe (UNECE) (1992) and Hudson et al. (1979) add that the challenges that have arisen tend to be linked to different countries' approaches to planning system operations and the introduction of EIA. As a result, many researchers have begun to focus on identifying the ways in which EIA implementation can be achieved in various settings.

2.6.1 EIA: Terms and Definitions

The most effective approach to understanding EIA development and it characteristics is to comprehend the terms and definitions that exist regarding it. As explained by Wood (1995) and the UN (1988), the terminologies related to EIA are both convoluted and varied due to the differences between different countries' approaches to EIA strategy and wording. In many cases, different countries share common terms without sharing common meanings for these terms. Therefore, there is a clear rationale for an exploration of the key definitions that presently exist for EIA.

Firstly, Wood (1995) and Sadler (1995) report that 'Environmental Assessment' (EA) and 'Environmental Impact Assessment' (EIA) are frequently expressed in reference to the same thing. This can be dependent on the country. For example, Weston (1997), Wood (1995), and the Department of Environment (DOE) (1991) explain that the EIA acronym is adopted in America due to the country's National Environmental Policy Act (NEPA) and EC Directive. However, in order to ensure that EIAs are presented as assessments of positive as well as negative factors, the EA acronym has been used in Canada and the UK. This being said, the Department of the Environment Transport and Regions (DETR) (1999) reports that the UK has adopted the EIA term so that it is not mistakenly thought to be related to the Environmental Agency (EA). This adoption of the EIA acronym has been in place since the implementation of the UK's Town and Country Planning Act 1999.

The lack of a global EIA definition is further emphasised by Barrow (1997) and Glasson et al. (2005), who note that nations continue to differ on their terminologies. One of the reasons for this is that EIA implementation must fit with specific countries' planning systems and environmental situations regardless of EIA being globally acknowledged as a strategy and theory. Thus, as pointed out by Weston (1997), Barrow (1997), Wood (1995), Sadler (1993), and the UN (1991), it is the unique objectives and circumstances of each country that determines the definitions of EIA and the environment. Furthermore, in the case of the US, which is comprised of 50 different states, NEPA is not able to determine every state's procedural potential when it comes to EIA implementation due to the diversity of circumstances and structures within each state.

The UN (1988) reports that EIA now incorporates economic and social factors alongside environmental issues. Moreover, the unique circumstances of each EIA-adopting country are now incorporated into EIA definitions. Of the various definitions that exist, some focus on specific projects' cost-benefits, economic factors and environmental setting (Ahmed et al., 1985) while others highlight the importance of achieving sustainable goals by considering the protection and maintenance of natural resources during development (Wood, 1995; Glasson et al., 2005; Smith, 1993). In all of these definitions, it is not the *ex-post* assessment that is stressed, but the *ex-ante*. Socio-economic, health and human resource factors are emphasised in two other key definitions (UNEP, 1988). Others also have defined EIA in terms of advanced planning and decision-making procedures, which marks an extension of project-based definitions (Bartelmus,1994; World Bank, 1991).

There is also significant diversity among EIA procedures, which are influenced heavily by the specific circumstances associated with different countries. In order to understand the key components of EIA processes, the following section outlines the theories underpinning the EIA process. According to Horberry (1985), EIA serves two main functions. Firstly, it can be used to ensure that development programmes are environmental-friendly and sustainable by assimilating the information that key decision-makers need to know. Secondly, EIA can be used to ensure that project outcomes (i.e. in terms of natural resources and the environment) are considered when developmental decisions are made. In addition, EIA can be used in construction projects in order to minimise environmental damage. Thus, when decision-makers are able to determine and forecast key environmental outcomes, EIA meets its main

objective. Moreover, when steps are taken to minimise or avoid such outcomes, EIA is able to meet its key aims.

EIA entails not only theories, but strategies (Fortlage, 1990). It involves politics, decision-making and communication along with the ability to forecast the outcomes of policy or projects through environmental and other data. Wood et al. (1991) explain that EIA has the capacity to ensure that negative environmental outcomes are avoided or minimised through the rejection or adjustment of projects, respectively. The UN (1992) adds that informed decision-making should include consideration of economic, social and environmental factors. This ensures that projects that are predicted to result in overly-negative environmental outcomes may fail to receive approval.

It should be mentioned that EIA is defined and perceived in a number of ways. While some scholars conceptualise EIA as a concept that guarantees the achievement of environmental decision-making objectives through appropriate development, others perceive EIA as simply an administrative barrier that needs to be crossed in order for a project to be carried out. However, this study adopts one definition of EIA in particular: EIA is defined by the Thai Ministry of Natural Resources and Environment (MONRE, 2012) as an assessment of the positive and negative impacts that development and other activity can have on the environment. Additionally, EIA serves the function of ensuring that such environmental impacts are avoided and minimised through the use of specific mitigation measures. EIA is a strategy that should be used before decisions are made in order to certify that decision-makers take the environmental impacts of development projects into full account.

2.6.2 EIA: Aims and Ideologies

Any decision that will probably result in a substantial impact on the environment should involve an EIA. It suggested that effective EIA processes entail an evaluation of projects, schemes, plans and policies, which means that EIA has a strong potential capacity (Munn, 1979). Wood (1995) and Therivel et al. (1992) point out that so far, it is only project-level development that has involved the implementation of EIA. With regards to the effectiveness of EIA implementation, it is said that EIA entails three key components:

Identification: This is based on determining the nature of development project factors that could impact the environment in a serious way as well as the nature of the current environment.

Prediction: Here, predicted outcomes are measured with regards to a benchmark standard. Typically, relevant project decisions are evaluated in terms of their environmental effect in order to conduct this calculation.

Evaluation: The identification and prediction stages converge to form the evaluation stage of the EIA procedure. The aim of this stage is to facilitate logical and informed decision-making based on data regarding other available options and the predicted effect that these will have on the environment. The effects that the proposed project could have is further considered. Furthermore, populations that may be impacted by the project are outlined during the evaluation stage.

Wathern (1995) argues that the above three components must be incorporated if a logical and methodical EIA procedure is to be achieved. The majority of studies on

EIA conducted in developed nations have emphasised the precision of EIA strategies linked with these components through the introduction of changes and developments. It is imperative to note that EIA entails more than scientific components: its capacity in the decision-making process should be considered since EIA was constructed for the purpose of facilitating decision-making during the planning stage. Thus, as Kennedy (1988) points out, both scientific strategies and approaches to decision-making at the planning stage should be taken into account when enacting EIA. There are a number of criteria for EIA implementation that are adopted by many countries. The following five criteria have been proposed by the UNEP (1988):

Emphasis on key concerns: Of all possible impacts on the environment, EIA should focus only on the most important rather than on assessing numerous issues at once.

Inclusivity of every relevant individual or organisation: In order to successfully implement EIA, three core groups should be involved. The first group are those who are assigned to EIA implementation and management, such as specialists and coordinators. The second group comprises policy makers, engineers, economists, scientists and other interested or invested parties who bring issues, thoughts and insights to the assessment. The third group entails politicians, regulators, authorities, investors, aid organisations, developers and other decision-makers who have the power to approve or change the development project.

Coordination of project decision-making and EIS data: In order to make informed decisions regarding a development project, EIS information should be shared at the design and planning stages.

Achieve effective environmental management by providing strategies to control environmental outcomes: The EIA should be built in such a way that the probable outcomes of every option are outlined without ambiguity in order to offer effective guidance on project implementation and planning.

Support decision-making by offering information in an appropriate format: The prediction and minimisation of environmental issues is the main aim of the EIA process. Those in charge of making key decisions should therefore, be able to comprehend the analyses of the EIA. Regardless of how significant the EIS information is, the majority of decision-makers will overlook information that is not offered in a style that they can relate to.

When these criteria are met, those involved in the process are more likely to work in harmony. Furthermore, this provides a benchmark standard for decision-makers to follow. The UN (1991) emphasises that these criteria should provide the foundation from which EISs and EIA procedures are carried out. The key stages that should occur within the most effective EIA procedures are outlined in the following section.

2.6.3 EIA: Key Stages

Glasson et al. (2005) emphasise that in order to permit re-evaluation and comments throughout the entire process, EIA should occur under guidelines that encourage a repetitive approach due to its logical and methodical nature. Various scholars and organisations, such as Petts (1999), Weston (1997), Barrow (1997), Sadler (1996), Wood (1995), Wathern (1995), Glasson et al. (2005), and the UN (1991), have explored the stages within the EIA process in great depth. The majority of studies offer guidance on how to manage each stage, along with a common approach to best

practice. The guidelines are outlined below based on Pimcharoen's (2001, p.26-27) propositions:

Screening – In order to identify whether or not a development project is relevant for an EIA, or whether changing the project's setting or size could negate the need for an official EIA, it is important that project screening takes place.

Scoping – The effectiveness of an EIA depends heavily on scoping, which aims to identify major environmental impacts that must be explored in order to focus the analysis of the EIA. Here, the entities that are likely to be impacted by the project are determined along with the predicted major effects of the action. Since scoping removes the focus on more insignificant factors, scoping can offer time and cost benefits.

EIS Preparation – The purpose of this stage is to present an objective and unambiguous image of the project's environmental outcomes, the suggested strategies to manage these outcomes, the extent of the impacts and the issues raised by members of the public with regards to the project. Initially, a draft EIS is published under the USA NEPA framework. This draft is open to public input. After taking public opinion into account, the draft is modified and the final report is generated. In some cases, numerous reports can be released if the EIA process involves multiple modifications and adjustments. However, the main point of this stage is to produce one report that summarises the content in a non-technical manner.

Public Participation and Consultation – It is important that the EIA process is inclusive of public input, since this can assist in making sure that the project or action is not perceived to be harmful to the environment. Public participation should occur

throughout the EIA process from the start, though it is essential during the scoping phase. The purpose of consultation is to ensure that decisions are not made without public input, since public opinion enhances the success of EIA implementation.

EIS Review – At this stage, the competence of the EIA report is evaluated. Specifically, the report is assessed based on its provision of sufficient decision-making data, proposal evaluations and fulfilment of its Terms of Reference (TOR). Here, the statement methodologies, quality and content of the EIS are officially reviewed by consultants, members of the public and the relevant authority. It is crucial that the EIS' objectivity and accuracy is assessed by an independent review board, since consultants are usually assigned with releasing statements for supporters or developers of the project. At the decision-making stage, the project's implementation terms and conditions (T&Cs) are constructed if the project is authorised. Projects can also be vetoed at this stage. The decision-making system has a crucial impact on the approval of the project. Often, other issues such as economic policy and national security must be reviewed along with the EIA for a proposed action to be passed.

Monitoring and Auditing – The purpose of monitoring is to guarantee that further EIA proposals and mitigation strategies are enhanced; the current project's mitigation strategies are successful; the environmental effects of the project are noted; the forecasted outcomes are the same as the actual outcomes; and that decision-makers adhere to approval criteria. The monitoring stage should take place once decisions have been made on the project, and it should be conducted across the project's operation, execution and construction. The idea behind EIA is that monitoring should be constantly conducted to identify the potential need for changes following the original decision. The purpose of auditing is to comparatively review the forecasted

outcomes against the real outcomes in order to assess how precise the EIA process is. Auditing is also important in guaranteeing that the post-completion stage of the project is supported by measures to protect and maintain the environment in which the project took place. In addition, auditing (and monitoring) can be useful for future EIAs and baseline research since it allows the processes of existing EIAs to be tested.

Wood (1995) and the UN (1991) illustrate that EIA implementation involves a successful combination of decision-making (as an 'art') and EIA strategies (as 'sciences'). Thus, EIA is a multifaceted and cyclical process. It is crucial that decision-makers are provided with comprehensive and meaningful information if EIA is to be successful.

2.6.4 EIA: Effectiveness

Although it has been practiced for over 50 years, there are still significant debates about the effectiveness of EIA (Morgan, 2012) . The majority of the critique concerns the gaps between theory and practice (Partidario & Sheate, 2013). As a result, the debate concerning the efficacy of EIA is still ongoing (Sanchez, 2013; Fischer, 2016) after gaining significant traction during the 1970s. It is suggested in this thesis, that research that focuses on EIA effectiveness can provide insight into how its application may be improved in order to achieve its intended objectives (Almeida & Montano, 2017). The views concerning EIA effectiveness in the literature are summarised below. The majority of these studies have conceptualised effectiveness in terms of EIA's ability to achieve the criteria delineated in methodological guides (Ahmed & Wood, 2002; Badr, 2009; Marara et al., 2011). For scholars such as Wood (2003) an EIA is only effective if it is able to meet the effectiveness assessment criteria.

Scholars such as Sadler (1996) and Macintosh (2010) measure EIA effectiveness in terms of its procedural (Cashmore et al., 2004; Sadler, 1996; Kabir & Momtaz, 2013), normative, transactive and substantive aspects. Its procedural aspect concerns its ability to adhere to international standards of good practice whereas its normative aspect concerns the adaptability of EIA agents based on learning outcomes. The transactive aspect concerns the ability to effectively measure time-based and financial resources, while the substantive aspect (Arts et al., 2012; Cashmore et al., 2004) concerns the ability to decipher the influence of EIA on decision-making processes.

This research primarily focuses on the procedural effectiveness of EIA in Thailand, and it is thus imperative for the criteria to be employed in the analysis to be established. Organisations such as the International Association for Impact Assessment (IAIA) (1996) have delineated both operational and basic principles and basic principles to serve as the criteria for the EIA implementation process. Sadler (1996), also notes four categories: the timing of an EIA process; the stage at which the terms of reference (TOR) are prepared; the robustness of the information and other products; and the receptivity of decision-makers.

With regard to this criteria, it is common knowledge that EIA should be implemented at an early stage and that the TOR are crucial for guaranteeing an effective EIA process. It is also imperative that alternative proposals are considered as part of the EIA process, and that the EIS is of a high standard as it impinges on the decision-making of policymakers and thus, impacts on the EIA. Sadler (1996) identifies five limitations of EIA practice which are outlined below. In chapter 8, these limitations will be considered in the case of Thailand.

1. Attitudinal: project proponents and development agencies circumvent the EIA;

2. Structural: the EIA is poorly aligned with decision-making in the area of project implementation, policy implementation, and planning;

3. Institutional: the scope of the EIA is narrowly conceptualised and hence limits the focus on important factors such as health which ultimately become side-lined;

4. Procedural: a lack of guidance and effective implementation of the EIA process underpins user challenges concerning efficiency and timeliness amongst others; and

5. Technical: the accuracy and quality of EISs is inconsistent.

In this research, the overarching objective is to examine the impact of EIA on new housing development by analysing the decision-making process that underpins EIA policy-making and implementation. In chapter 5, EIA systems are critically analysed and this analysis draws on the institutional, procedural and administrative components of the EIA decision-making process in Thailand's housing sector (discussed in chapters, 5, 6, 7, and 8).

2.7 The Policy-Making Process

This section examines the topic of policy-making processes, policy implementation, and policy impacts by drawing upon the range of previous research studies and the theories currently available. Following this, the research provides a framework for analysing the state-business relationships in EIA policy-making process. The research focuses on the different roles of actors and their influence on three policy stages: agenda setting, formulation, and implementation. Following this, the research presents the concept of policy networks, and then outlines the conceptual framework.

This research addresses policy-making and application along with an overview of the setting within which they occur, as well as the relationship between various interest

groups, in order to gain a clear comprehension of the state-business relationships in Thailand and their influence on the nation's EIA legislation. Furthermore, Hajer & Wagenaar (2003) point out that the alterations to Thailand's policy formulation processes over the last 20 years has led to a rising level of reliance, increased dynamics and uncertainty in the system. This is largely due to an evolution of authority, in which Thailand's politicians and government institutions have begun to relinquish dominance, while interest groups from various sectors and industries are gaining influence.

2.7.1 Policy Formulation

Howlett & Ramesh (1995) suggest that policy-making involves the investigation and judgment of the policy options. In the majority of cases, policy makers do not make a great effort to incorporate theoretical studies and new perspectives into their decision process (Howlett & Ramesh, 1995). Instead, many policy makers look to other regions and local agents, as well as the expertise of their own institutions, to find direction (Rose, 1991). It can also be said that the knowledge acquisition of those forming the policy can depend on the knowledge of those applying the policies. Dolowitz & Marsh (1996) highlight the lack of policy models that could be used to solve restrictive issues (i.e. issues that involve unusual challenges, or that have similar socioeconomic features). Furthermore, an institution might find itself pushed, whether overtly or subtly, to take on a certain policy (Dolowitz & Marsh, 2000). Grindle & Thomas (1991) suggest that this burden might force the hand of countries that require a great deal of assistance, which can result in them bowing to the demands of foreign actors.

In terms of knowledge acquisition, decision makers must then find a way to incorporate what they have learnt, if they do decide to incorporate this knowledge. Rose (1991) and Bennett (1991) point out that policy learning can include imitation along with various levels of interpretation; meaning that the changes to the policy may fluctuate from the given framework. Rose (1991) explains that this is a consequence of a policy's approval being reliant on numerous factors (i.e. socioeconomic situation, political environment, policy history and so on). Cobb et al. (1976) add that social opinion, cost and the realistic possibility of implementation can influence the decision on whether or not a policy is approved or changed. Additionally, the opinions, support, reactions, administrative room, budgetary allowance, career aims, and so on, of government elites are often influences of policy-making (Grindle & Thomas, 1991).

Howlett & Ramesh (2003) suggest that these actors must possess at least some information and expertise regarding the improvement of the issue at hand, given that these actors must be able to present a persuasive case for alternative policies. Furthermore, the actors should have a genuine, long-term interest in the issue, since policy-making can take a long time, and a lot of effort, to finalise. At this stage, policy networks may be a significant factor. For example, it has been said that the integrity of the intervention of network actors in policy-making and implementation processes is reaffirmed by the relations between the appropriate participants and government officials (Stone, 2001).

Although both non-state and state participants are involved in cooperative activities, it has been found that decision makers tend to depend on the guidance to 'epistemic communities', which refers to knowledgeable networks within the given field (Rose,

1991). Stone (2001) points out that the knowledge acquisition gained from these networks, is obtained in a professional manner, with the consent of the participants; though this is not always the case. Marsh & Rhodes (1992) add that policy can be shaped by organised interests, officials and elite figures, along with experts and scholars; though, in some cases, policy-making can favour governmentally- or academically-elected actors (Howlett & Ramesh, 2003).

2.7.2 Policy Implementation

Schofield & Sausman (2004) propose that policy implementation refers to the ways in which public policy is approved and carried out, along with the reasons for doing so. Hill & Hupe (2002) explain that since policy content can be changed or excluded while it is going through the implementation process, thus affecting the outcome of the policy, action is a crucial step in the policy implementation process (Hudson & Lowe, 2004). Parsons (1995) explains that the ‘bottom-up’ and ‘top-down’ models are two approaches often referred to in policy-making and policy implementation studies, and that the purpose of evaluating policy at this point is to identify why there are separations between policy outcomes and policy aims.

Thus, the aim of this policy implementation section is to theoretically examine how roles and behaviour discretion influences policy implementation. In establishing a range of techniques and truisms regarding the organisation and management designed to produce the best possible pairing between administration and political objective, both 'top down' and 'bottom-up' models have played a valuable part.

The Top-Down Approach

Proponents of the top-down approach include Bardach (1977), Van Meter & Van Horn (1975), Nakamura & Smallwood (1980), and Mazmanian & Sabatier (1983). This approach views implementation as the centralised policy objectives in a hierarchical manner. The first step in policy implementation from a top-down perspective is that central government decides upon a policy (Parsons, 1995). The top-down approach largely ignores the effect of implementers on policy implementation and presupposes a straight causal connection between policies and perceived results. This approach views a policy as input and implementation as output, making it a rather narrow reading of implementation. The top-down approach has been described as a phenomenon of the governing aristocracy due to its focus on the decisions made by central policy-makers (DeLeon, 2001).

Pressman & Wildavsky began the research from the position that central policy-makers are responsible for establishing the intent of policies. According to Pressman & Wildavsky (1973), implementation itself is seen as the relationship between establishing objectives and the actions designed to achieve these objectives. In order to achieve the successful delivery of a policy, the scholars believe that implementers need to be governed by guidelines that set clearly comprehensible duties and establish a tiered system of control and also require ensured access to adequate resources (Pressman & Wildavsky, 1973).

Additionally, Van Meter & Van Horn (1975) focused their research on how the goals of a policy coincide with the ultimate results of implementation. The connection between policy and execution is evaluated through the analysis of six factors. The

majority of these variables concern hierarchical management and the capabilities of organisations. Similar to the propositions of Pressman & Wildavsky (1973) and Van Meter & Van Horn (1975), Sabatier & Mazmanian (1983) begin the analytical model with decisions made by government officials. The authors presuppose a clean division between creating and implementing a policy. For Sabatier & Mazmanian (1983), successful policy implementation requires that six criteria be satisfied:

- The goals of a policy is clear and constant;
- The policy programme is founded on a reliable causal theory;
- The organisation of implementation procedures is well-structured;
- Those charged with implementing the policy are devoted to the achievement of the policy's objectives;
- Executive and legislative leaders and interest groups are supportive;
- The socio-economic context does not suffer any negative changes.

Sabatier & Mazmanian (1979) claim that through adopting suitable programme models and well-structured implementation procedures, policy-makers can guarantee successful policy implementation. However, they do recognise that, in reality, it is extremely difficult to achieve ideal hierarchical management over implementation and that policy implementation can fail in uncomplimentary conditions (Sabatier & Mazmanian, 1979).

The Bottom-Up Approach

The prominent scholars of the bottom-up approach include Lipsky (1971, 1980), Ingram (1977), Elmore (1980), and Hjern & Hull (1982). Lipsky (1971) states that the communication between citizens and social workers must be taken into account by policy analysts. Hudson's (1993) claim that it is not simply the behaviour of citizens that public service employees (or 'street-level bureaucrats' as Lipsky terms them) have power over. Furthermore, these street-level bureaucrats are believed to enjoy significant independence from the institutions that employ them due to the substantial powers of discretion they are able to employ (Hudson, 1993).

Lipsky reveals that policy-making at the ground level generates procedures that allow public service workers to deal with the day-to-day difficulties that arise in their professions. This central tenet supports the creation of procedural plans concentrating on players at the ground level, and illustrates that the hierarchical management structures emphasised in top-down theories are not sufficient to ensure the effective implementation of policies (Lipsky, 1971). Also, the bottom-up focus of Elmore's (1980) work called 'backward mapping', rejects the idea that central policy-makers are in control of implementation and affirms that the starting point of evaluation should be a particular policy difficulty and how local agents work to resolve the issue.

A practical network methodology for the analysis of the procedure of implementation is proposed by the work of Hjern (1982) and Hjern & Porter (1981, 1982). These scholars believe that in the study of policy implementation, it is vital to consider the fact that execution involves a number of different agents and organisations. The starting point for their methodology is to identify the groups of agents found in the

pertinent organisations working on policy delivery, and to explore how these groups handle any difficulties they face. This method has been hailed as a valuable mechanism for detailing the structures of implementation involved in policy delivery (Hjern & Porter, 1981; Sabatier, 1986). Sabatier (1986) has, nonetheless, criticised this approach for not providing causal theories in relation to the associations between the actions of individuals and financial and legal variables.

Differences between Top-down and Bottom-up Theories

Top-down and bottom-up implementation approaches are poles apart. The key differences between the two approaches are wide-ranging. Each approach adopts polemical research methodologies, different interpretations of the process of interpretation, contrasting procedural policy models, opposing frameworks of democracy and conflicting analytical objectives (Pülzl & Treib, 2007).

Indeed, they bear the names of their opposing approaches to research. The starting point of the top-down approach is the policy decisions taken by the governing elite which are then passed down to those charged with implementing the policy. The starting point of bottom-up approaches is the identification of agents active at the bottom of the chain, that is, those who play a part in the actual execution of a policy. Bottom-up analysis then progresses from this point, moving sideways as well as upwards, to find networks of implementers and examine their approaches to handling the difficulties associated with policy implementation (Pülzl & Treib, 2007).

These two approaches each rely on opposing concepts of the procedure of policy-making. Nakamura (1987) underscores the fact that top-down theorists are

significantly affected by the classic model of the policy process which presupposes that it can be separated into a number of easily identifiable, distinct stages. Bardach (1977) explains that, as a result, top-down analytical models concentrate solely on what occurs following the passing of a bill into law and not on the entire procedure of establishing a policy.

According to the bottom-up approach however, the creation of a policy and its implementation are inseparable and policy-making is a continual process which occurs throughout policy formulation and implementation. As a result, bottom-up theorists look at the entire procedure of creating, implementing and, possibly, re-thinking policies as opposed to one single phase of the process (Pülzl & Treib, 2007). Furthermore, both approaches adopt contrasting perspectives of the nature of policy implementation. Mazmanian & Sabatier (1983) explain that top-down theories interpret implementation as the execution of a policy decision, making implementation simply an administrative procedure untouched by politics. It is the central policy-makers who are in control, decide upon policy goals and establish a hierarchical structure to oversee the achievement of these goals. The concept of hierarchical management is dismissed by bottom-up theorists who claim that it is not possible to manage implementation from head to toe or to create statues with indisputable policy objectives (Hjern & Hull, 1982; Lipsky, 1971). The bottom-up theory posits that significant discretionary power is vested in implementers and that the process of implementation, therefore, cannot be seen as a straightforward procedure of adhering to decisions that come from the top of the hierarchy. Instead, bottom-up scholars believe that implementation is highly political and policies are formed largely at local levels (Lipsky, 1971).

Bottom-up theories claim that the concerns of private agents, local officials and relevant interest groups and citizens should be considered, stating that ignoring these real concerns invalidates the decisions taken by central policy-makers. It is not, in the view of bottom-up theorists, a violation of democratic values to depart from centrally-formulated policy goals. Thus, democratic governance is only genuine when it involves a participatory democratic framework in formulating policies which takes into account everyone impacted upon by a policy decision, from ground level administrators to private individuals and interest groups (Pülzl & Treib, 2007).

It is clear that the arguments between top-down and bottom-up theorists are wide-ranging and far-reaching and do not simply concern the question of who drives the implementation process. According to O'Toole (2000), if the impetus behind implementation serves as the only source of disagreement between these two approaches, then the debate would be ineffective. Parsons (1995) does acknowledge that supporters of both camps adopt a broad view of the complexities of the process of implementation by overplaying their contrasting standpoints. For instance, top-down theorists have focused too much on the power of central policy-makers to introduce unambiguous policy goals and methodically manage the implementation process (Sabatier, 1986). The critical reaction of the bottom-down theory thus exaggerates the discretionary powers of street-level bureaucrats and the independence of ground level agents from those positioned above them.

2.8 Analytical Framework

The similarity across the NIC literature is the postulation that public policy-making and implementation is a key element within the complicated relationship of socio-

economic and political influences, in both an overall and national context (Ronald & Doling, 2013). Hence in this context, this thesis aims to offer further frameworks to help understand the role of the state in enacting EIA regulations, as well as to assess the ways in which influential business representatives become a part of state systems. Further, the thesis aims to gain a nuanced understanding of the ways in which the constantly-evolving state-business relationships are a key part of regulatory and new-housing development from a domestic political economy perspective.

This research establishes a conceptual framework in order to investigate how EIA implementation in Thailand was affected by socio-economic and political factors, as well as how EIA impacts on private sector by focusing on state-business relationships through a corporatist theoretical approach. The ways in which EIA has developed, and how this is linked to the country planning system, can be understood through an exploration of the EIA policy making-process. Corporatist approach was applied in this study to investigate how EIA policy is affected by the input of business groups and their associations when the EIA might have an effect upon their members. This input takes the form of negotiations, of which the results are affected by how close they are to the government as well as how the groups are organized. The interaction between the groups accepted by the government and the government itself dictate what form public policy takes (Grant & Sargent, 1987).

The establishment of environmental policies and programs in Thailand has been driven by diverse factors which diverge significantly from those in the Western contexts where EIA was originally established (discussed in chapter 5 and 7). Specifically, in the Western context, environmental policies and programs emerged as a result of citizens; demands and hence they were “bottom up” initiatives. Concerns

about environmental degradation mainly emanated from the key concerns of the social agenda.

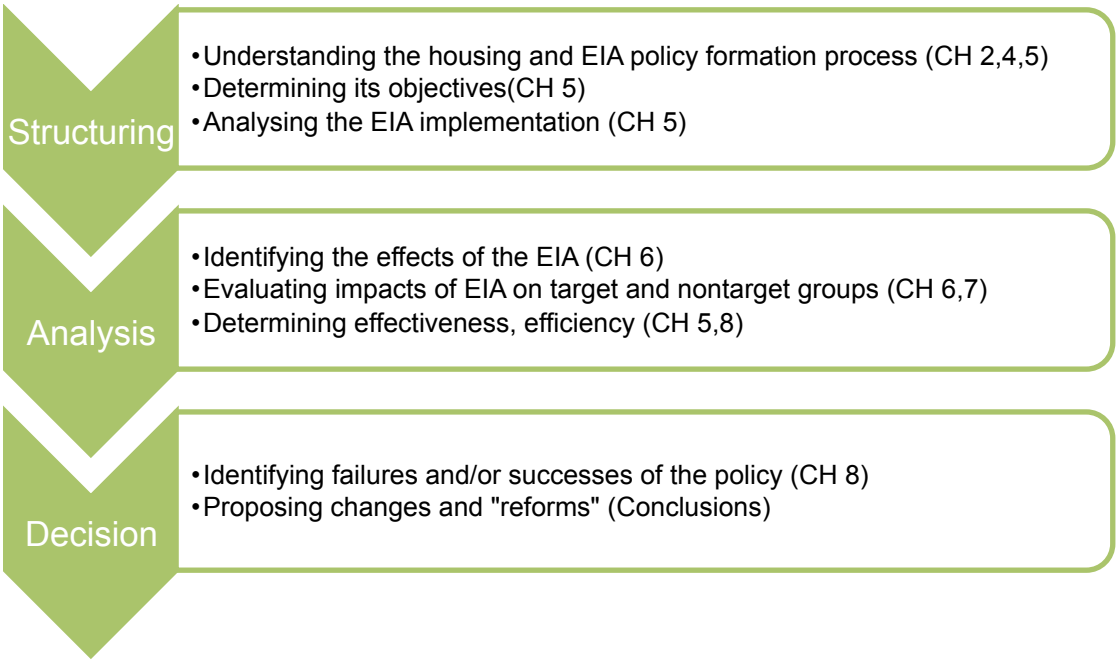
Environmental policies established in Thailand have largely assumed a "top down" design and emerged not due to a "perceived necessity but as a fashionable response to Western developments" (Roque, 1986, p.154). Thailand has been influenced by international "peer pressure" to address environmental issues. The country has also drawn from the efforts of bi- and multilateral development agencies who have actively promoted environmental protection causes via their loan and aid programs (discussed in Chapter 5 and 7).

Contemporary researchers in the housing field are consistently focusing on state and business relationships and the influence of these relationships on the development efficacy of the country (discussed in chapter 4). Although a myriad of researchers have approached this subject in various ways, all of the previous studies have concentrated on the interaction between public sector, private sector, and civil society well as the formulation and implementation of public policies to illustrate the differences between nations in terms of their industrialisation orientations (discussed in chapter 4).

Policy Analysis

This research applied Dye's (2014) concept of policy-making process as policy analysis framework which made up of three stages including policy formulation, policy implementation, and policy evaluation, as shown in Figure 1.

Figure 1 Policy Analytical Framework



Source: Adapted from Dye, (2014, p.38)

Stage 1 - Policy Formation

Stage one looks at the housing and EIA policy formation process which consists of problem identification, agenda setting, and policy formulation. This part examines the fundamental elements which influence the effectiveness of EIA implementation including national housing and environmental policies, regulations and guidelines (chapter 4 and 5), national and local administrative framework (chapter 4), EIA procedure (chapter 5), and role of actors involved (chapter 4 and 5). Howlett and Ramesh (1995) explain that during the policy-making phase, policy makers take time to investigate, judge, and refute or adopt the policy, or policy change. In this instance, the participants must have a reasonable amount of understanding regarding, as well as long-term interest in, the issue at hand – and how to solve it – since their aim is to promote the benefits of alternative policies. Public policy is said to be driven more

often by actors that have been chosen by officials (Howlett & Ramesh, 1995). Nonetheless, Stone (2001) argues that epistemic communities (i.e. scholarly networks), can also form an important part of policy change, though, as Marsh & Rhodes (1992) illustrate, this impact may be influenced by interest groups within the government system, as well as externally.

Stage 2 - Policy Implementation

Stage two explores the EIA policy implementation stage. The discussion covers the EIA Implementation in practice (chapter 5, 6, and 7), EIA compliance and its impacts (chapter 6, and 7), and international interactions (chapter 7). Outlying government departments are often responsible for taking policy from the formulation stage to the implementation stage. Hudson & Lowe (2004) suggest that, during the implementation phase, the policy may be changed (or refuted) by government elites. This can occur due to a number of issues, including discord within the workplace, a lack of sufficient time and funds, ineffective interaction between the relevant actors, or a lack of clear aims. Consequently, Marsh (1998b) suggests that when the members responsible for carrying out the policy have not been a part of the policy-making process, there may be issues involved in the implementation of the policy. Perkin & Court (2005) state that there should be an assessment of how each policy stakeholder shapes each phase of policy formulation. This is especially important in terms of international growth activities and the role of civil society organisation networks. Additionally, at the agenda-setting phase, policy makers are advised by networks to focus on certain key issues through the use of discussions regarding relevant theoretical perspectives and academic findings, lobbying, and building relationships between interest groups and policy makers. Civil society organisation networks offer

comparable services, in terms of offering their findings to the relevant policy makers in order to promote alternative policy content. This being said, the majority of civil society organisations offer assistance on problems that are low on the government's priority list, and other provisions of aid, community support and advice; thus enabling governments to deal with more pressing or complicated issues (Perkin & Court, 2005). The study of part 1 and 2 offer a standardised basis for evaluating the insights, effectiveness and functioning of EIA systems in Thailand and, at a subsequent point, provide a foundation for the part 3 which includes evaluation and suggestions.

Stage 3 - Policy Evaluation

Finally, Stage three examines EIA Policy evaluation in Thailand which includes discussion on the strengths and shortcomings of EIA implementation in Thailand (chapter 8), as well as policy alterations and suggestions (chapter 9). Although policy-making processes are complicated and drawn-out, it is possible to segregate these complications into separate elements by using the stages framework (see Figure 1). It has been suggested that policy changes occur only when emerging groups of members with alternative aims and perspectives take over the position of policy community leaders (Baumgartner & Jones, 1991). While these policy communities tend to be heavily limited in terms of resources such as knowledge, different policy options and innovation of issues can occur when these benefits are shaken. Kingdon (1984) suggests that certain political events (i.e. committee changes, media focus, interest group activation, or changes to public perceptions) can lead to policy change (discussed in chapter 5 and 7).

In summary, it is essential that the relationship between representatives of various interest groups is considered as a key element of policy-making process. For example, from housing and environmental development perspective, we must consider the interaction between those causing damage to the environment, which is likely to be impacted by policy implementation, and the government, which is tasked with solving environmental issues through the generation and enactment of public policy. Essentially, it can be recognised that the consequences and results of policy implementation relates largely to this relationship.

The interaction between the business sector, the government, and civil society is assessed how the key players involved in the relevant policy-making processes, as well as the way in which they relate to one another, and their respective authority. The relationships between business and the state can vary, and often relies on a number of factors. Such factors include the country's (in this case, Thailand) policy-making norms, its economic and environmental policies, the level of comprehension between the two actors (i.e. the business sector and the government) as well as the political and economic significance of the sector (in this case, business).

2.9 Conclusion

In this chapter, the state-business relationship theoretical and empirical literature that will serve as the analytical framework for the subsequent chapters in this thesis, was critically analysed. Central to the discussion in this chapter was the tenor of the available literature pertaining to the characteristics of business-government relationships and the implications for housing development and NICs relations. This aspect of the literature is particularly crucial for addressing the research questions of

this thesis. In the next chapter, the methodology of thesis, which depicts how these research questions will be answered, is delineated in detail.

CHAPTER 3 RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the methodological framework for the empirical analysis in this thesis. The thesis aims to understand the impact of EIA on developers' decision-making in new housing development. In particular, the study intends to illustrate the problems and constraints developers face when environmental regulation potentially conflicts with imperatives favouring economic growth. The role of the EIA process is explored in order to understand its influence in new housing project development. The study involves an exploration of relationships between new housing development, environmental quality and economic progress in terms of how major agents for change in Bangkok prioritise economic and environmental considerations in new housing development.

3.2 Why Qualitative Methods and In-depth Interviews

The primary focus for data collection is on exploring decisions regarding the introduction of environmental regulation related to new housing (especially as regards environmental impact assessment), examining how such regulation is taken into account in private sector decisions on housing construction. There is further a focus on the interaction of builders and government agents in interpreting how environmental regulation is enacted. As such, this thesis is not simply concerned with outcomes (viz. building patterns) but also with what lies behind those outcomes in terms of how competing interests make their presence felt in compromises, lobbying and the enforcement of environmental considerations.

In terms of the primary unit of analysis, or "what or whom is being studied" (Babbie, 2007, p.94), this investigation focuses more on the processes via which outcomes are reached, rather than on the patterning of outcomes themselves. This does not mean that outcomes are ignored, nor that patterns are not important, for insight on causation can be derived from analysis of distributions as well as from in-depth analysis of processes (for example comparing distributions before and after imposing the EIA policy to assess its impact). Thus, insight can be gained from quantitative, qualitative, comparative, or case studies approaches; each has something to offer in developing a stronger understanding of cause and effect. In terms of the research question investigated here, the processes involved in policy-making take on particular importance because one of the questions at hand is whether the framework within which decisions are made is 'constructed' so as to favour one set of decision agents (viz. private sector builders). In other words, are outcome patterns not simply a result of interactions between builders and government agents over specific construction decisions but also a result of setting the 'rules' within which builders and government agents act? If there is an interaction effect between these two, which casts important light on the influence private sector firms have on the efficacy of environmental regulations on house building, then this points to advantages in exploring both how regulations are formulated and how they are enacted. As Kalof et al. (2008) have indicated, where there can be interactive effects between causes, with the investigator needing to interpret processes as they unfold, a qualitative approach is most optimal with in-depth interviews serving as the primary method for data collection.

A qualitative as opposed to quantitative method is applied in this study because quantitative approaches are predicated on a search for explanations of social phenomena via the use of scientific methods and deductive logic (Vallaster & Koll, 2002). Quantitative approaches facilitate comparisons and the statistical aggregation of data and hence permits a broad generalizable set of concise findings (Patton, 2002). While the quantitative approach has several merits it stresses the measurement and analysis of causal relationships between variables, and not processes (Denzin & Lincoln, 2005). Further, considering the framework of the research approach, a qualitative design can yield more descriptive data which is required for addressing the research questions of this thesis. Thus, a qualitative approach is more appropriate for this research. Denscombe (2007) suggests that deciding a strategy for the research with a focus on the scope of the research problem and investigation could enable the researcher to devise a good research strategy that is compatible with the research objective. The purpose of this research is to investigate the in-depth decision-making process with regards to public policy-making and its implementation, as well as decision-making in relation to private development in Bangkok, Thailand. In accordance with the research scope of this thesis, a case study design is adopted.

Yin (2011a) has described case study methodology as a means of empirical enquiry particularly suitable for exploring the how and why of contemporary phenomena within a real-life context. This methodology, notes Yin (2011b), is particularly relevant when the researcher believes the context to be highly pertinent to the subject under study. In the context of this thesis, the pertinence of the study is rooted in the lack of research on NICs as delineated in chapter 1.

Stake (2005) states that cases examined can be single case studies or comparative (multiple cases) studies. Yin (2011b) defines single cases as relevant when the case is contemplated under demanding, exclusive, emblematic, or on-going criteria. A comparative approach is to be used when establishing duplicated or confirmed criteria. Many analysts have cited advantages of using comparative approach. Baxter and Jack (2008) and Stake (2005) argue the attributes can be distinguished when comparative cases are studied. Yin (2011b) explains that the investigator is able to interpret the evidence both within and across situations. Yin's findings also concluded that comparative study could be used to either argue contradictory evidence for expected reasons, or to argue comparable conclusions in the research.

Comparative approach possesses benefits and drawbacks, which the analyst must contemplate. Siggelkow (2007) argue that different circumstances can be adequately characterized by single case study. The characteristics of the theories are superior in single case study as they produce additional and sophisticated data (Dyer et al., 1991). Comparative approach is time consuming and allows the researcher less time to examine each case (Gerring, 2004). Yin (2011b) argues a single case study is sufficient when one lone individual needs to be studied, such as an individual from a distinct body, or a single country. Dyer et al. (1991) argue that the analyst receives a more profound perception of the account in this way.

As reasons outlined above, a single case study approach is considered as the most appropriate research strategy for this thesis. Thailand is the main focus in this study. Moreover, a single case study permits an exploration of the structure of EIA in Thailand, including the motives behind its workings and how associates regard it. It

analyses the data collected and investigates possible enhancements that could benefit the performance of EIA in Thailand.

3.3 Data and Data Collection Methods

The data collection process for this study entailed three phases. Firstly, preparatory research was conducted to initially establish the current status of EIA regulations and housing development in Bangkok. This involved extensive research in libraries in Thailand and in databases located at the King's College London Library in the UK. The second stage of the data collection process was to analyse Thailand's EIA and the work of established environment and planning agencies. The final stage of the data collection process entailed nine months of fieldwork in Bangkok, Thailand, from May 2014 to January 2015. During this period, data was mainly acquired through primary methods in the form of semi-structured in-depth interviews although data triangulation was used to verify interview data, through the analysis of secondary sources in the available literature. The interviews involved key respondents such as government agencies, private sector actors, as well as third sector agencies involved in the EIA registration and housing market. The content of the interviews drew extensively from an understanding of the Bangkok housing market derived from a statistical examination of major trends in house building which is explained in Chapter 4.

Since the purpose of this study is to investigate the decision-making process with regards to public policy-making and its implementation, as well as decision-making in relation to private development, interview questions were designed to elicit nuanced insight on the research focus above. The sample population, as has been delineated

above, was selected based on probability sampling techniques discussed further in this chapter. It is however notable that Fischer et al. (2007, p.410) caution that:

> *Policy-related research often draws on interviews, especially of legislators or agency executives. Yet interviewing need not be restricted to "elites"* [4]*. From an interpretive research perspective, especially one informed by critical theory, non-elite actors are also seen as playing a role in shaping policies, especially in rejecting top-down acts such as in policy implementation; and the researcher would want to understand their perspectives as well.*

For instance, it has been discovered by Hoffman (1995) that policy regarding technology is influenced by factors beyond policy-makers, including technology companies and university research teams. To derive a comprehensive understanding of the policy formation process, it is necessary to capture the 'mind-set' of each of the actors involved in such processes in their own terms (rather than imposing an interpretive framework through the structure of questions in a questionnaire, for example). Thus, this thesis sought to incorporate the views of a myriad of actors in the policy formation process via semi-structured interviewing, as opposed to a myopic focus on elite groups solely. The sets of questions are about how government officials seek to achieve in drawing up (or implementing) EIA procedures. How the EIA regulation was planned and developed, as well as how EIA regulation impacts on new house building in Thailand's capital city (see Appendix 2).

While semi-structured interviews generate information between interviewer and interviewee (Kvale, 1996, p.124), derivation of themes from interview transcripts

[4] (see, e.g., Soss, 2006; Walsh, 2004)

requires circumstantial understanding and insights from theory. In other words, interviews are more than discussions on an issue (Wengraf, 2001); rather, interview-based information is grounded in theory.

The specific focus for investigating interactions between government agents and private sector builders concerns EIA procedures. In order to investigate the relationship between development companies and state agencies, two aspects of the EIA process were investigated.

First, there are the specific building projects that are required to be subject to this procedure. In this regard, there is already an impressive literature on how legislation is often implemented in unexpected ways; where the intention behind the legislation is not matched by outcomes from it (e.g. Pressman & Wildavsky, 1984; Siedentopf & Hauschild, 1988). This is where interaction between agents takes a different form from that involved in introducing new laws or regulations. Once legislation is in place, a great deal of business interest can be expected to focus on what companies have to do to ensure a project succeeds. Here the kind of issues that arise include: how companies engage with public officials before submitting proposals in order to secure maximum favour for a proposal; how they engage with officials after a submission is made to mitigate requirements they do not like; what characterises the compromises they prefer to make in order to secure official support; and, of course, what they see as the bottom-line as regards deciding whether a project is tenable.

These set of issues are about how companies respond within a regulatory framework. Yet there is also the issue of how they seek to determine what that framework is: how far they engage with politicians, officials or others to have legislation framed in a way

they find less burdensome; whether lobbying over this framework persisted over time; and, how effective any such lobbying has been. These two sets of issues provide foci around which semi-structured interviews were framed. Relevant agents in the state or third sectors were asked similar questions to those in the building industry. For example, what did government officials seek to achieve in drawing up (or implementing) EIA procedures; have these objectives changed over time; and, if so, why is this? Again the focus is on both what happens for specific development projects, as well as what was intended and achieved in establishing the framework for EIA procedures. The Appendix 2 presents the interview question guides for each category of respondents.

During the interviews, informants were provided the flexibility to set the scene and provide subjective accounts of their phenomenological experiences. Thus, information concerning the involvement of certain agents, how they acted, their respective motives, actions that had been tried and failed and so on, was provided by the respondents as opposed to the *a priori* assumptions of the researcher. In this sense, the approach adopted follows Patton (1990), who argued that the objective of interviewing is to find out what cannot be directly observed and allow the researcher to understand the viewpoint of other people. This process begins with the assumption that other people's viewpoints are significant and that they are capable of being articulated through a discussion of relationships and events in their own terms.

For Keats (1999), a key advantage of semi-structured interviewing is that it presents researchers with opportunities to obtain more in-depth and natural responses from respondents and further permits additional questioning. Thus, the semi-structured interview aims to derive information that is scarcely available or is unavailable from

secondary sources (Gaskell, 2000; Kvale & Brinkmann, 2009; Wengraf, 2001). As a caveat, such information can be obtained via questionnaire surveys, provided these follow in-depth exploration with a small group of relevant respondents so as to ensure the relevance of questionnaire items. This is an approach used by many scholars for large-scale investigations because the questionnaire survey has significant advantages in determining general trends and differences across population groups. In the case of this thesis however, the population group under study is not large; in Bangkok there are approximately 60 large (Public Company Limited) housing developers with operations of a size that have the potential to be directly affected by or at least have to consider how Environmental Impact Assessment (EIA) might impact on their building programmes (SET, 2014). These companies might well operate in different fields, so the mix of housing developments they are engaged in is not uniform. In these circumstances, the operational framework within which building companies conduct their business can be expected to be subject to dissimilar pressures, with different behaviours across sub-markets. These factors point to the appropriateness of an in-depth interview as opposed to questionnaire approach in this study. It is argued that the use of in-depth interviews facilitates the acquisition of a detailed understanding of the driving and restraining forces that inform the actions of national and local public policy-makers, as well as private sector construction operations.

Research Sampling Procedure and Sample Size

It is important in comprehending the complex processes that occur between different parties when establishing new environmental rules, that crucial actors in such processes are first determined (Wengraf, 2001). This section explains the research sampling process including the selection of key informants.

When conducting a study, sampling is important. Flick (1998) states that the groups and cases incorporated into the research method are decided by the decision made relating to the sample and how the sample is structured. Neuman (1997) defines a sample as a group upon which generalisations can be based that the researcher has drawn from a portion of the total population. Mason (2002) claims that monetary and time restrictions are the main reason a small, selected sample is typically used.

Non-probability sampling can be divided into four types (Berg, 2001). The first pertains to convenience samples or samples that are chosen due to the researcher's accessibility and close relations. The second concerns purposive samples, which are selected on the basis of their knowledge and fields of expertise that can be used to represent the whole with regards to a particular field. Samples are also generated though the snowballing technique whereby the acquaintances of the initially interviewed persons are leveraged to expand the sample size. Finally, quota sampling is based on the selection of the sample that conforms to specific demographic requirements (Berg, 2001).

In this thesis a mixed form of non-probability sampling strategies is applied. A quota sampling process is employed to select sample informants who are integral to EIA processes including those specified by legislation; namely, governmental organisations, non-governmental organisations and development firms. Yet what precise role these and other agents play needs to be determined by empirical analysis. The key aim is to identify and gain insight from those who have been most influential in determining the outcomes of EIA frameworks and decisions. As this cannot be determined before undertaking the research (following Hunter's (1953) classic study,

no assumption should be made that those in formal positions of authority are necessarily the most influential agents), criteria it is required to identify those who are likely to have knowledgeable insight on the 'reality' of EIA processes, most obviously by identifying those who have formal positions in such processes. From this initial list, a snowball sampling method was employed, as this provides access to new informants that those engaged in the policy process have identified as influential on policy outcomes (Given, 2008). As such, the initial group of interviewees was approached as an opportunity to gain access to interviewees' contacts, and thus, access to further crucial respondents.

The snowball sampling method was applied in this research because the population of interest was not directly accessible to the researcher. This method entailed the identification of an initial set of relevant respondents, who were subsequently requested to suggest other potential subjects with similar characteristics or who have relevance in some way to the object of study. This second set of subjects were subsequently interviewed, and were also requested to supply names of other potential interview subjects. This process was continuously implemented until the researcher was able to attain a sample large enough for the purposes of the study, or until respondents began to repeat names to the extent that further rounds of nominations were unlikely to yield significant new information.

3.4 The Primary Sources

A review of the relevant literature concerning the EIA was conducted to identify the key stakeholder groups to be studied. In order to address the research question of this study, it was imperative to understand the interactions between relevant stakeholders and the level of influence of each group. Thus, it was important to engage with the actors who had participated in, and had been affected by the project. The study made use of stakeholders or target groups categorised into nine units of analyses: government agencies and local government officers, politicians, the project proponents; associations; lobbyists, the EIA consultants; the non-governmental organisations (NGOs); and, scholars and experts (see Appendix 1). This research sample was selected because of their technical knowledge of the EIA issues. Alo (1999), Glasson et al., (1997), Abaza et al., (2004), Garb et al., (2007), and ONEP (2014) recommend that research subjects are based on specialist knowledge to facilitate in-depth research studies. The nine categories established represent varying roles in the policy-making and implementation process.

3.4.1 Research Participants: Stakeholders of the EIA process

Key informants were selected from the three categories based on their usefulness and convenience, and were contacted by the researcher after the sample had been selected. Some respondents were purposively selected based on their unique combinations of knowledge and expertise. Access to such respondents was gained through familial relations, social networks and data searching skills.

Persons that form a part of EIA's population of actors or who represent organisations within it, were selected as key informants in order to provide an accurate representation of the greater organisation as a whole.

Table 2 The EIA Process and Associated Actors

Major Activities	Actors
Screening of project proposal	• Senior officers in a competent authority • Developer companies and certain of their support staff
Scoping: • **Definition of key issues** • **Establishment of parameters of study** • **Collection of base-line data**	• Competent authority • Developer • Environmental agency specialist • Representative of interest group
Impact Assessment (EIS) • **Identification and prediction of impacts** • **Evaluation of impact significance** • **Recommendation of mitigation and management strategies** • **Release of final EIS**	• Developer • Project leaders • Technical specialists employed by developer • EIA Consultant • Competent authority • Other environmental control agencies.
Review of EIS — decision is made	Expert Review Committee (ERC)
Implementation — development begins	Developer/ consultancy project leaders.
Monitoring and Auditing	• Technical specialists employed by developer • Competent authority and other environmental control agencies • Competent authority senior officers

Source: Lee (1989), Grab et al., (2007)

To ensure the feasibility and success of this investigation, it was imperative for the researcher to initiate contact early in the fieldwork process to determine whether a viable strategy had been adopted. Ritchie & Lewis (2003) state that doing so has two primary goals. The first is to provide coverage of every individual relevant to the

subject and of vital importance to it. The second is to guarantee that opinions on all pertinent areas are obtained and enhance the diversity of the sample. For this sample, participants were selected from three major stakeholders and agencies by the researcher. The process of creating and implementing the EIA policy involves members from all of these groups. An effective way to discover key informants is by determining the actors involved in EIA processes and their respective activities within these processes as shown in Table 2.

Table 3 A Summary of Samples of Target Groups in this Study

Target groups		Number of Sample size
Associations	Thai Condominium Association (TCA)	1
	The Thai Real Estate Association (TREA)	1
Project proponents	Big developers	12
	Small developers	5
Lobbyist		1
Politicians		2
Central Government officers	National Economic and Social Development Board (NESDB)	2
	Ministry of Natural Resources & Environment (MNRE)	3
	Ministry of Interior (MOI)	4
Local authorities	Bangkok Metropolitan Administration (BMA)	6
EIA Consultants		4
NGO		1
Experts/Scholars		4
Total		46

Source: Compiled by Author

As shown in Table 3, the sample size and categories of respondents that participated in the study are as follows: 46 informants, including 9 central government agencies, 6 local government officers, 2 politicians, 12 big-developers, 5 small-developers, 2

associations; 1 lobbyist, 4 EIA consultants; 1 NGO; and, 4 scholars and experts (see Appendix 1).

The objective was to interview both senior and street-level bureaucrats as they are involved in designing and implementing policy. EIA consultants and business CEO/managers that are involved in projects decision-making were also targeted. Each category of respondents was interviewed by different set of questions (see the Appendix 2) and each interview lasted approximately 30-60 minutes. Rather than adopting a numerical target for interviews, the theoretical sampling approach of Glaser & Strauss (1967) was used. This is where information is sought to the point where further interviews, even taking account of different perspectives and entry points in processes, yield no added insight. This is what Glaser & Strauss (1967) refer to as saturation. Participants were sampled from both governmental and non-governmental organisations as outlined below.

3.4.2 The Project Proponents (Private Housing Developers)

Since this research seeks to understand the impact of EIA on developers' decisions for new housing developments on whether or not to provide higher environmental quality in projects, interviewing private developers was conceptualised as a priority. This research focuses on housing developers who have undertaken at least one housing project involving an EIA process (at whatever stage of the process) in Bangkok. Informants from this sector include companies' Managing Directors / General Managers (larger firms) and Company Managers (smaller firms), as it is these agents who are most involved in project decision-making and dealing with the government officials (Dowall, 1992). The goal of such an interview is to understand the firm's

observed behaviour in light of the firm's business and competitive strategies, relationship to its markets, production, the behaviour of competitors and so on (Schoenberger, 1991).

In order to gain a more nuanced understanding of the broad structure of the Thai private house building industry, Golland & Blake (2004) postulate that it is imperative to adopt a system for classifying house-building companies which includes components of company size, in terms of: company type, annual output, profits, and turnover. It is argued that size provides a good measure of the various facets of a house-building company, as the aforementioned elements strongly influence modes of operation and internal organisation (Golland & Blake, 2004). In this thesis, Ball's (2002) approach to classifying house-building companies which is based on benchmarking characteristics against norms and availability of finance, based on the assumption that this approximately relates to annual levels of housing output is adopted. Thus the study adopts two classifications of private house-building companies: big developer and small developer.

Small Developers

All small developers interviewed in this study possess the Company Limited (Co. Ltd) status. These companies can be characterised as small capitalist, small family capital, or non-speculative house-building firms. This group of companies is dominated by local firms with long-standing ties in particular regions. They are characterised by firms whose main activities are not within the speculative house-building industry and thus, during difficult trading climates, these house-builders may

retract and build no houses for that period, rendering them vulnerable to the consequences of bankruptcy. These firms have an annual output of up to 1,000 units.

Big Developers

All big developers that participated in this study possess the Public Limited Company (PLC) status. Usually this type of house-building company operates a two-five year land bank, whereby money can often be raised through periodical calls to the share market via rights issues. This category encapsulates the major house-building companies which are generally large capital or long term development capital house-building firms. These firms build in excess of 1,000 units output each year and are typified by the ownership of several subsidiary companies operating on a regional basis. They archetypally dominate the house-building industry's output.

The selection of the initial interview list was based on the targeting of two groups. First, and most obviously, there was a focus on developer companies that undertake projects requiring EIA reports. Secondly, attention was given to developer companies that build residential projects that do not need EIA approval. These companies' information was collected from the Agency for Real Estate Affair (AREA). Regarding the number of projects and size of market share of the companies, this research first chose Twelve Public Limited Companies (PLCs), defined in this thesis as "Big Company" for interviews and detailed analysis. These 12 property developers by market capitalisation, occupied 60 percent of the market share of the total Bangkok property market (CBRE, 2014). The data collected from AREA shows that each of these companies has developed a number of residential projects which provide diversity of project types, sizes, and locations. The study also focuses on five small

development companies (Company Limited companies) defined as “Small Company” in this thesis. Public Limited Company developers and Company Limited developers both dominate the condominium markets in Bangkok. As mentioned above, the major criteria to be considered for choosing companies are: the number of companies’ projects, types, and location involved in EIA and project prices and types.

In this study, the affected target has been identified as the individual companies and the housing related associations. The number of both big and small housing developers in Bangkok has been estimated in excess of 200 companies and thus, a significant investment of time and money is required to research this population. Thus, it was difficult to achieve a large sample size with respect to this population meaning that not all companies affected by the EIA have been captured in this study. The sample size of the affected housing companies used in this research is: 17 interviewees, including 12 big-developers and 5 small-developers. It is argued that despite the small size of the sample, it provides enough accurate data to achieve the purpose of this research.

3.4.3 The State

The purpose of this study is to examine the extent of influence of a range of governmental and non-governmental organisations on the outcomes of the decision-making procedure. Environmental policy is not made under the independent control of the government; rather it seems to be influenced by different organisations, frameworks and concepts at a political and social level (Sharkansky, 1971). The planning system in Thailand is composed of three sections: firstly, national development planning; secondly, planning at an intermediate level; and thirdly,

planning at a local level concerning special zones (DTCP, 1994). One of the primary issues the government must deal with is environmental policy. However, the preparation and realisation of these policies are dealt with as discrete entities. The central government creates thorough blueprints outlining the general path of development in the future (Rattanatanya, 1997).

The planning of the environmental policy of the country was created and enacted by the members of this group. Their influence in the creation and implementation of new policies is a well-known and accepted part of the political system and is one of Thailand's oldest institutions, the bureaucracy.

In order to understand the procedures and policymaking process of the EIA and its impact on new-housing development, it is important to learn the opinions of government officials. Current and past employees of the core national agencies that worked as street level bureaucrats or mid-high ranking government officials were used as key informants. The policy making process and implementation of Thailand's EIA policy initially relied on senior bureaucrats within the central government to provide vertical support and gradually involved street level bureaucrats and local stake holders to provide horizontal support. This study has tracked this transition by interviewing enforcement officials.

The interview with the senior and street-level bureaucrats provided data on how state agencies assume the role of determining impacts on private housing development through the setting of the environmental policy framework and by regulating and directing new house building. The broader perspective relates to articulating factors of the economy and politics, especially bureaucratic politics affecting this policy. While

senior bureaucrats provided a top-down' perspective of fidelity to policy makers' goals, street-level Bureaucrats provided a 'bottom-up' perspective of policy adaptation during the implementation process (Yong & Miller, 2008) (details about the roles of senior and street-level bureaucrats are explained in chapter 2). A range of state agencies include:

The National Economic and Social Development Board (NESDB)

The National Economic and Social Development (NESD) Plan establishes the main aims of national development and is drawn up by the NESDB. The plan is re-considered every five years and a shift in direction and agenda has been noticed in the past years. The NESD Plan contextualises and lays out the main objectives of Thailand's economic and societal state. The NESD Plan is responsible for coordinating the function of all governmental departments. The departments must also create their own plans based on a five-year cycle that corresponds with the policies and ventures put forward by the NESD Plan. Thus, the interviews with its officials helped to understand whether the EIA objectives and its strategies comply with the five-year national development plans and goals from the macro (national) perspective.

The Ministry of Natural Resources & Environment (MONRE)

In order to gain insight into the historical and current aspects of EIA procedures, participants for the interview were selected based on their experience with the EIA. These interviews helped to identify the current situation of EIA in Thailand with particular focus on the EIA process, implementation, and approval (ONEP, 2012).

- Office of Natural Resources and Environmental Policy & Planning (ONEP)
    - Expert Review Committee (ERC)
        - According to NEQA1992, section 48-49, EIA report has to be submitted to ONEP for preliminary review before final decision on the report was made by the Expert Review Committee.
        - Environmental Impact Evaluation Bureau (EIEB)

The Ministry of Interior (MOI)

The Ministry of Interior is responsible for planning and building approval. A factor that has a major impact on EIA adoption is planning legislation and regulations. The primary focus of the EIA mainly concerns land-development planning and the realisation of ventures (Weston, 1997). The interviews helped to understand the relations between EIA and the planning frameworks on a national scale, particularly in terms of the institutional context for urban planning.

- Office of Urban Development Planning (OUD), which oversees the Building Control Act and the Town and City Planning Act.
- Department of Public Work (DPW), which is responsible for all infrastructure design and construction.
- Department of Town and County Planning (DTCP), which directs the land use planning.

- Department of Lands, which oversees the Condominium Act and Land Management Act.

Local Authorities (Bangkok Metropolitan Administration)

The local authorities of Bangkok are the Bangkok Metropolitan Administration. According to the Bangkok Metropolitan Administration Act 1985, this body is in charge of the running of Bangkok city and thus it has complete responsibility for residential wellbeing at a local level. The aim of the interview is to further investigate the rapport between the government, local authorities and private companies in relation to the integration of EIA, land development and the procedure of planning. While the central government designs the policies and plans, the local authorities are responsible for their realisation.

- City Planning Department
- Public Work Department

3.4.4 EIA Consultants

Besides governmental bodies, EIA Consultancies are another crucial party in the process. EIA Consultants refer to those who are registered with ONEP and have the capacity to make EIA reports. The EIA Consultants, according to the National Environmental Quality Act (NEQA), 1992, Section 46, are responsible for the preparation of the EIA report. In Thailand there are currently 74 license holders including private companies, university-based institutions and state organisations (ONEP, 2016). These licences last for 2 or 3 years depending on the age of the

company. The interviews chose four prominent firms that specialise in making EIA reports for residential projects.

3.4.5 NGOs

Since the 1980's, the numbers of NGOs in Thailand have been proliferating dramatically (Awakul & Ogunlana, 2002). A myriad of environmental NGOs in Thailand have supported community rights on environmental and natural resource issues, over state rights. Presently, there are approximately 80 NGOs registered as environmental NGOs in Thailand, although many more have not yet formally registered their organisations (King Prajadhipok's Institute, 2007). It is assumed that many of those that have not registered formally do not want to be legally accountable to the state. Further, formal registration is concomitant with increased paperwork since they are required to submit reports about their activities to the government (Awakul & Ogunlana, 2002).

The Thailand Environment Institute (TEI), a registered NGO was focused upon in this study. Established in 1993, the TEI is a purely academic and large private institution that is highly influential in the formulation of environmental policy through its close relations with the government. Government reports often rely on TEI research as their authoritative source (AIT - UNEP, 2010). A TEI staff member with extensive experience in the EIA process was interviewed as part of this study.

3.4.6 Academics and Experts

The academics and experts in this study stem from the national academic organisations who are interested and involved in EIA. Some of these persons have

been integral to the formation of EIA for example, by participating in the EIA policy-making process, seminars, or consulting with the government about EIA implementation. In particular, one academic was selected to sit on the Expert Review Committee (ERC).

3.5 Secondary Sources

To understand the responses of different agents to the EIA regulation, interviews need to be undertaken from a position of knowledge about building patterns in Bangkok, so appropriate prompts can be used in interviews, and relevant contextualisation for the interview can be attained. There is a plentiful supply of statistical data to help in this regard. Much of this information is used in chapter four to provide a setting for the reader on the dynamics of Bangkok's new housing construction, as well as on the character and diversity of the construction industry.

The deeper meanings contained within documents are illustrated, substantiated, and better understood by the documentary information obtained from documents (Ritchie & Lewis, 2003). Public questions regarding public information is the heart of written information, whereas, experiences, history, and events are studied through documentary information. Assessing the effects of EIA on the development of new housing is the goal of this thesis. The history of these events was unfolded through the study of the relevant forms of private and public data.

Varying kinds of documents and the information they contain can be acquired through many different methods. The internet, newspapers, journals, international and local literature, research documents, implementation reports and inventory or supervising

results of connected authorities, policy and regulation documents, company profiles, housing statistics, and demographic information are all existing secondary documents that can be used to generate relevant information (Mason, 2002).

Electronic and printed sources provide documentary data. Thailand's housing applied in the BMR, environmental registration, and planning are all areas covered by the statistical and descriptive data stored in these sources. An ample supply of documentary data for the core of this thesis was provided by reports from the relevant institutions, journals, magazines, research, and related books that contain statistical and descriptive information.

The data from electronic sources are mainly gained from websites of relevant institutions. These institutions include governmental bodies e.g. Office of Natural Resource and Environmental Planning (ONREP) National Housing Authority (NHA), Government Housing Bank (GHB), National Statistical Office (NSO), National Economic and Social Development Board (NESDB), and Real Estate Information Centre (REIC); private institutions include the Agency for Real Estate Affairs (AREA), Real Estate Information Centre (REIC) and Thai Appraisal Foundation amongst others. Table 4 summarises sources of housing and other related data.

3.5.1 Housing Data and Statistics

The assessment of policy making decisions and the performance of the urban housing sector was carried out through sources that are detailed in this section. Information on housing that aids in the planning and decision making of policy makers and planners is contained within the "Housing Report" issued by the National Housing Authority

(NHA) and the Government Housing Bank (GHB) that was requested by the Housing Policy subcommittee (HPS) in 1990. As a part of the Housing Information System (HIS) this report collates and details the recent developments in:

- The population increase and rates and other population data.
- Laws and regulations that affect housing development.
- Professional labour, the rate of construction and other labour data.
- The classification of housing projects by type and the applicable numbers.
- The quality and quantity of housing producers and housing stock data.
- The effects of changing attitudes and income on housing demand.
- The correlation between the number of houses completed and supply.
- Quality of system finance, rates of finance and other matters of housing finance.
- Land utilisation, such as maps showing land use and permission for land allocation.

The notable variation in the quality of the information collection process, resources, and technical expertise in the eight different agencies that contribute to various aspects of this report, is the reason for these deficiencies.

3.5.2 Housing Developers

Data on housing construction is available based on the type of developers operating in the Bangkok Metropolitan Region's housing market. This information is important for

deciding on an interview strategy, since there are some companies who have had housing projects that are smaller than the cut-off for falling under the environmental impact assessment requirement. Yet some of these companies are growing rapidly, and have the potential for undertaking larger projects. They thereby offer a particular perspective on how the regulation is impacting the sector, by enabling the exploration of how the regulation affects decisions on increasing the size of existing projects. Available data on developer characteristics includes information on:

- Ownership Structure / Type of firm / Size of firm / Scale of operations
- Market area of operation / Geographical sector
- Level of experience / environmental concern/house built

Table 4 Sources of Housing-Related Data

Classification of Data	Source of Data
Population (Demographic)	BMA, National Statistical Office (NSO)
Housing Demand	CBRE, AREA, REIC, NHA, BOT, GHB, NSO, and Thai Military Bank (TMB)
Housing Stock	CBRE, AREA, REIC, NHA, Bank of Thailand, GHBank, NSO, NHA, BMA
Housing Completion	CBRE, AREA, REIC, NHA, BOT, GHBank, TMB, and BMA
Slums	BMA, NHA, NGOs
Housing Finance	Bank of Thailand, GHB, TMB
Land	Department of Lands, BMA
Laws and Regulations	BMA and Department of Lands
Construction Materials	Thailand Institute of Scientific and Technological Research

Source: HPS (1991)

As shown in above, this information is available at CBRE, the Real Estate Information Centre (REIC), the Agency for Real Estate Affairs (AREA), the National Housing Authority (NHA), the Government Housing Bank (GHB), Bank of Thailand,

and the National Statistics Office (NSO). The available data is used to formulate the research plan. This is especially true regarding housing outlook information in Bangkok in relation to the pattern of development and resultant effects on the environment. The information is examined in order to serve as a basis of choosing the case studies. These are selected as a representation of residential development.

3.5.3 EIA Data and Statistics

The data and statistical information regarding ventures put forward to the EIA during the years 1985 to 2016 was gathered from ONEP. The information held by the EIA ventures include the name of the venture, the developer, the kind of development, its scale, location, consultant, date it was submitted and approved, and EIS's report. This information is available on the ONEP's website. The ONEP library and other organisations such as the National Economic and Social Department Board (NESDB), the Department of Town and Country Planning (DTCP) and the Department of City Planning for Bangkok, were used as a sources of information regarding EIA legislation and regulations, documentation concerning planning, studies on EIA procedures and some insightful case studies of EIA practice.

Besides EIA data and documents from ONEP, the following legal documents and administrative data are also important sources of information about EIA and housing operations, activities, and outcomes. The analysis of these administrative data and legal documents help to establish the basic facts and underlying processes concerning housing and environmental regulation in Thailand and Bangkok. The consulted documents are as follows:

- Bangkok Metropolitan Administration (BMA)
    - Bangkok Comprehensive Plan B.E. 2549 (2006)
- Ministry of Interior (MOI)
    - Building Act
    - Land Development Act B.E. 2543 (2000)
    - Condominium Act (No. 3) B.E. 2542 (1999)
    - Ministerial Regulation No. 8 & 9 (B.E.2543) Issued under the Condominium Act B.E. 2522 (1979)

3.6 Data Analysis

Data analysis can be conceptualised as the *"systemic procedures in order to identify essential features and relationships"* (Wolcott, 1995, p.24). Raw data from the field in qualitative research approaches is typically iterative and messy (Miles & Huberman, 1994) meaning that qualitative data analysis must be done in a meticulous and creative manner (Spencer et al., 2003). In this research, unstructured raw data was collected through the use of tape recordings and interview notes. To understand the responsibilities and functions of key organisations from a historical perspective, electronic documents and publications were analysed prior to the fieldwork. This raw data was subsequently coded for analysis through the use of interview transcripts (Patton, 2002b). Throughout the research, the anonymity of the interviewees was maintained. Microsoft Word and Microsoft Excel were used to systematically manage the interview data, generate memos, and form groups of codes based on themes found from the interview data. During the transcription process, transcripts

were carefully checked for accuracy before and during the conversion to a word-processing file for analysis in order to safeguard the reliability of the research findings (Mays & Pope, 1995).

The qualitative data analysis process in this study relies on the theoretical sampling or grounded theory approach proposed by Glaser & Strauss (1967, p.x), defined as follows:

> *...the process of data collection for generating theory whereby the analyst jointly collects, codes and analyses his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges. There are two important concepts associated with theoretical sampling that should be considered. Saturation refers to the fact that no additional data can be found that contributes to the categories being considered. The researcher must focus on 'situations' until no further insights can be generated. Secondly, slices of data define different kinds of data that give the analyst different views or vantage points from which to understand a category and develop its properties.*

The goal of using this approach is to construct theories from data in a systematic way in order to understand the observed phenomena of the impacts of public policy on new-housing development regarding relationships between new housing development, environmental quality and economic progress. According to Berg (2001) the adoption of a theoretical foundation enables the researcher to gain a better understanding of the data since via this process, the opinions and language of the socially constructed world of the informants are revealed to the researcher.

Data coding formed an integral part of the analysis process. It is argued that this is a suitable method because it enables the themes that emerge from the key informants'

account to be established. It also better illuminates the subjective meanings of human activities and social behaviour which is the goal of this thesis. The coding and analysis process entailed the characterisation of data according to their similar attributes (Sinclair et al., 2009) for the purpose of addressing the research questions. The coding process was enabled through a scheme guide designed to address questions such as: what were barriers and constraints to implementing EIA? The scheme guide thus enabled a more focused approach to drawing out, and then subsequently coding the raw data that had been acquired. As part of the coding process, the characterised attributes were classified again into more conceptual categories of theoretical analysis. Data and categories were grouped in accordance with their relation to each other.

In the presentation of research findings in this thesis, direct quotations from the transcribed interviews were used. These direct quotations were coded accurately and are presented in italics. However, some additions, which have been presented in brackets, have been added to clarify speech. Direct quotations are essential in some parts of the thesis because they constitute the empirical data of this study. Since data in this thesis is mainly qualitative, these quotations represent the subjective perspective of participants encapsulated in their interviews.

Triangulation

Bryman (2008) claims that the severely limited generalisability, limited repeatability, and high subjectivity are the primary criticisms of the methods and results of qualitative research. The quality of the research can be guaranteed by demonstrating the reliability and validity of the research in the face of these limitations. In the

context of this study there is the possibility of informants' going off topic in response to the interview questions and moving into self-justification, In order to overcome these obstacles, the triangulation strategy was adopted. Bryman (2008) states that investigating social events through more than one form of information and using multiple tools is the definition of triangulation. Combining methods of collecting data, by studying documentaries and carrying out interviews for example; acquiring information from multiple sources, and gathering information over various periods of time are all elements of data triangulation (Easterby-Smith et al., 2002). It is suggested that checking the accuracy of the information obtained through the information gathering process increases the validity and reliability of the conclusions.

Official statistics, reports, government publications, company newsletters, journals, parliamentary debates, newspapers, books, and the Internet all served as secondary data sources for the researcher. Methodological triangulation was thus used to obtain access to these records. It is imperative to note that interview data is rarely considered in isolation, and thus, the goal of collecting such data is often to confirm information that has already been collected from other sources. When documents, memoirs and secondary sources provide an initial overview of the events or issues under examination, interviews with key respondents can be used to corroborate the early research findings (Tansey, 2007). Thus, interviews contribute towards the research goal of triangulation, where collected data is cross-checked through multiple sources to increase the methodological robustness of the research findings. Hence by ensuring that data is not collected solely from one source or type of source, triangulation serves as a strategy for increasing the credibility of findings through the support of multiples sources, and can reveal the weakness of some sources that might otherwise have been

viewed as reliable (Davies, 2001). In this research, interviews also served the purpose of confirming the accuracy of information previously collected from other sources.

Findings were verified and inconsistencies highlighted by comparing interview transcripts of stakeholders and government officials with archival documents. Hodder (2000) states that this strategy provides information that cannot be obtained orally or efficiently gathered otherwise and as such the researcher's knowledge of the subject is expanded.

3.7 Conclusion

This chapter presents a justification of the paradigm that guided the research methodology of this thesis. Qualitative in-depth interviews were employed as the primary inquiry strategy for this thesis in order to conduct a case study of EIA practices and its impacts in the Thai context. To achieve broader and methodologically robust data and results, secondary data collection was used to triangulate the research findings. The first method entailed a review of documents concerning the operations, activities and concepts of the EIA process. A need for in-depth information on EIA processes and their outcomes also led to the decision to carry out semi-structured interviews featuring a wide range of stakeholders. Stakeholders who held key positions or played important roles in the EIA process were identified for the interviews and an interview guide including evaluation questions was developed. Data analysis and discussion are conducted through a qualitative approach and are presented in chapters 5, 6, 7 and 8. In the next chapter, background information on housing development in Thailand is critically examined.

CHAPTER 4 HOUSING MARKET AND INSTITUTIONAL AND REGULATORY FRAMEWORK IN THAILAND

4.1 Introduction

In this chapter, the housing market in Bangkok will be focused upon with an emphasis on the genesis of housing development in the city. This discussion will include an investigation into the principal trends in the Thai housing sector and the main actors/agencies involved in housing development in private sector housing development. Additionally, the organisations that represent these firms when interacting with government agencies, including representation organisations for companies in all sectors, are explored. Further, third sector organisations that work on behalf of civil society in terms of housing developments and related issues, are also critically assessed examined. Finally, this chapter expounds on the nature of government agencies related to housing, particularly focusing on their responsibilities, the legal systems within which they work, and their resources.

4.2 Thailand and Bangkok: Growth and Urbanisation

Urban economies rely heavily on the housing industry. In developing countries, the proportion of Gross Domestic Product (GDP) that has been invested in housing has continued to rise. From 1960-71, the mean proportion of GDP dedicated to housing in low-income countries was 2.51 percent, whereas it was 4.56 percent in the period 2001-11, a rise of 2.01 percent. In upper middle-income countries, the corresponding figures for the same periods showed a rise of 5.11 percent from 4.01 percent to 9.12 percent.

(Dasgupta et al., 2014). In Thailand, housing investment and services together make up around 7 percent of GDP in 2017 (Klinchuanchun, 2017). The significance of housing is even higher when taken as an asset and it comprises from one-fifth to up to half of all wealth in most nations. It further has an impact on household consumption and acts as a key incentive for household saving. Indeed, housing's impact is far-reaching and it has an effect on financial depth, repayments, government budgets (via taxes and subsidies), labour mobility and inflation (Dasgupta et al., 2014). Clearly, the housing industry must be viewed as an essential component of the wider economy. The characteristics of the housing sector in Bangkok, Thailand, and its surrounding regions are discussed in this section.

4.2.1 Thailand: Introduction

Thailand is located in the middle of Southeast Asia (see Figure 2). The country is one of the Association of Southeast Asian Nations (ASEAN). The country was declared a Newly Industrialised Country (NIC) in 1988 (Friend et al., 2016). It is approximately 513,120 square kilometres in size and is home to around 67.6 million inhabitants (NSO, 2018). With 132 inhabitants for every square kilometre, the country is the fifth most densely inhabited ASEAN nation (ADB, 2018). Thailand comprises 76 provinces, an estimated 2000 municipalities and 878 districts. Bangkok serves as the capital city and it is governed by an autonomous local authority, the Bangkok Metropolitan Administration (BMA) (DOPA, 2018a).

Thailand has grown as a production centre for manufacturing industries and became the second biggest economy in Southeast Asia. The economic development of the region is higher than a number of other regions worldwide and the GDP is

approximately US$525 billion (BOT, 2017). The nation has a liberal capitalist economic system which has led to robust internal competition and a growing middle class, with economic development being driven in large part by the private sector.

Figure 2 Location of Thailand and Southeast Asia

Source: Ontheworldmap.com (2016)

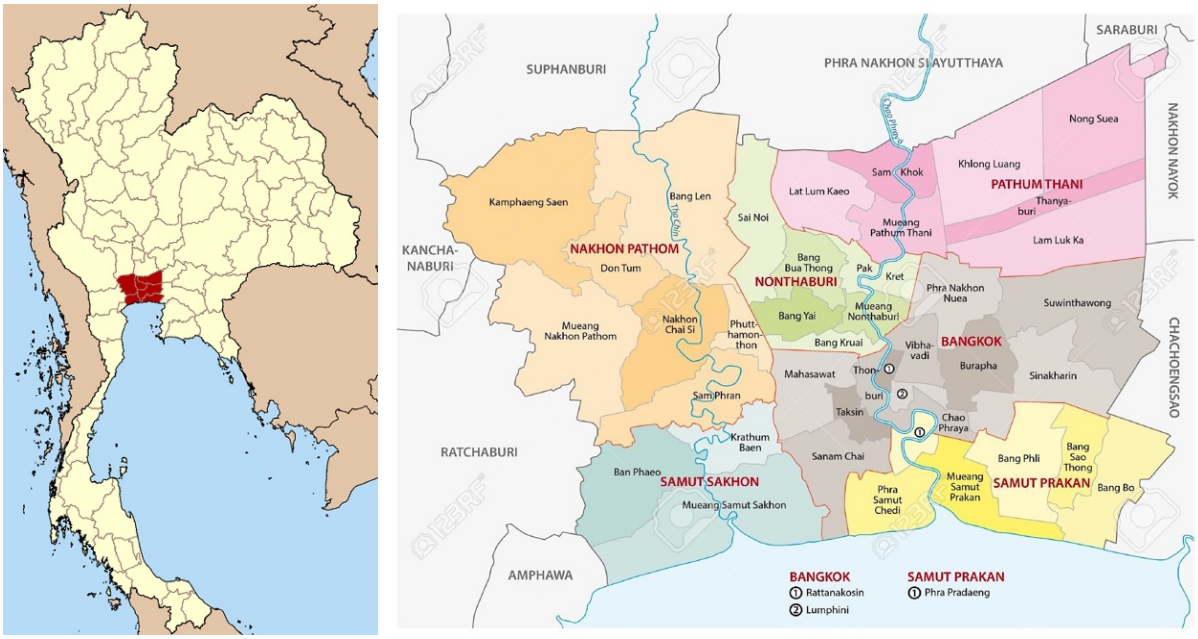
Thailand's economy was founded on agriculture and it was an underdeveloped nation up until 1960. Excluding the years between 1997 and 2000 when Thailand succumbed to the Asian financial crisis, from the 1960s onwards the country's economy grew consistently (BOT, 2015). Economic growth peaked at 10 percent per year between 1987 and 1996 (OEPP, 1998), and approximately 4.6 percent per year between 2000 and 2010 (JICA, 2013). This was due to the Thai government's export-oriented policies and low production costs compared to other countries (Thabchumpon, 2002). Thailand enjoyed a larger share of the global market as a result. During this period, Thailand became a NIC. According to the Bank of Thailand (BOT) (2017), poverty in Thailand had been progressively falling. The improvements seen in the country are

due to its transition from an agriculture-based economy to industry-based economy, with manufacturing mostly for the export markets (Reutergardh & Yen, 1997; OEPP, 1998). At the beginning of the 1950s, Thailand's manufacturing industry accounted for 14 percent of total GDP with agriculture accounting for 38 percent of GDP. This situation has now reversed and agriculture accounts for approximately 9 percent of GDP while manufacturing accounts for 40 percent of GDP (BOT, 2017).

4.2.2 Bangkok and Bangkok Metropolitan Region (BMR)

Bangkok is a post-industrial city that is reliant on a service-based economy. Bangkok occupies 1,568 square kilometre in the Chao Phraya River basin in Central Thailand (BMA, 2016). The Bangkok Metropolitan Region (BMR), which occupies an area of 7,762 square kilometre, encapsulates Bangkok and five adjacent provinces which are: Samutprakarn, Patumthani, Samutsakorn, Nakornpatom and Nonthaburi (Figure 3).

Figure 3 Maps of Thailand, Bangkok, and Bangkok Metropolitan Region (BMR)



Source: Rainer Lesniewski (2016) and Sized.us (2018)

Thus, Bangkok can be conceptualised as an extreme primate city (Bureau of Registration Administration, 2016). In the past 15 years, Bangkok has experienced continual development. The increasingly high cost of available prime land has been concomitant with the proliferation of high density, high-rise buildings in response to high investment costs (CBRE, 2017).

Bangkok has only one CBD which is located in the Sukhumvit, Silom, and Sathorn area (Figure 4). The CBD is mainly characterised by high-rise condominiums, service-apartments, hotels, and office buildings targeted at high-income and elite groups. It serves as the hub of economic activity which revolves around the country's financial and service sectors. Bangkok's CBD is still undergoing expansion along its rail transit system such as Metropolitan Rapid Transit (MRT) and Bangkok Mass Transit System (BTS) because of rapid urban growth. Gentrification has been accompanied by rising land costs in the CBD. Several sub-centres are located on the periphery of the inner city (CBRE, 2017) and the majority of these are located along main roads or railways.

These areas are also characterised by condominiums located close to MRT and BTS stations. By contrast, most housing projects in the urban fringe and suburban areas are in the form of townhouses and single-family houses, also located close to main roads and expressways (CBRE, 2017). Hence, it may be argued that the major transportation routes serve to indicate Bangkok's urban growth patterns. Residents of the BMR commute into Bangkok city on a daily basis and thus, housing developments have spatially expanded from Bangkok city to cover these five areas in

response to urban trends. As a result, the Bangkok housing market encapsulates the greater area of the BMR (CBRE, 2017).

Figure 4 Bangkok CBD and Outer CBD

Source: Fresh Property (2017)

4.2.3 BMR Demographics

The expansion of Thailand's economy has been accompanied by population growth. Table 5 depicts the connection between the household size, household number in the housing market and population. Information gathered in 2016 reveals that there was an average of 2.02 individuals in every household in the BMR, a significant reduction from the estimated 2.54 individuals per household recorded ten years earlier.

According to the World Bank (2017), the population of Thailand is estimated at 69.04 million. It is also estimated that the Thai population lives in over 23.8 million households (UN, 2017). In 2017, the population grew at a rate of 0.3 percent (World

Bank, 2017) which is slower than the growth rate between 2000 and 2010: 0.8 percent per year (JICA, 2013).

Table 5 Population and Household in Thailand, 2006–2016

		2006	2008	2010	2012	2014	2016
Population	BMR	9,948,392	10,161,694	10,326,093	10,455,800	10,624,700	10,765,226
	Bangkok	5,695,956	5,710,883	5,701,394	5,673,560	5,692,984	5,686,646
	Thailand	62,828,706	63,389,730	63,878,267	64,456,695	65,124,716	65,931,550
Household Size	BMR	2.5	2.4	2.3	2.22	2.1	2.0
	Bangkok	2.65	2.52	2.4	2.25	2.1	2.0
	Thailand	3.2	3.1	3.0	2.8	2.7	2.6
Household Number	BMR	3,916,690	4,181,767	4,450,902	4,706,232	5,006,091	5,318,037
	Bangkok	2,149,417	2,266,223	2,395,544	2,522,855	2,672,423	2,816,711
	Thailand	19,572,806	20,581,081	21,653,650	22,836,819	24,091,404	25,233,077

Source: Data Processing Centre, The Bureau of Registration Administration, Department of Provincial Administration (DOPA) (2017)

Concurrently, the number of households increased by 2.5 percent per year between 2000 and 2010 which is nearly identical to the growth experienced between 1990 and 2000. The average household size in 2010 was 3.2 persons (JICA, 2013). In Table 5, the 2016 data shows that the number of households in the BMR rose by 6 percent in that year. The registered population of the BMR stood at 10.76 million in 2016 (about 16 percent of the population), representing a population growth of 1.32 percent from 2014. The population of Bangkok is 5,686,646 which represents approximately 8.5 percent of the Thai population (BMA, 2016). These demographics changes, therefore, have significantly impinged on housing demand, particularly in the BMR. As the average household size continues to decline alongside the rising cost of land in prime areas, there is an increasing demand for condominiums. In response to this demand, the size of housing units has become smaller. In the BMR, housing in proximity to arterial roads and especially MRT and BTS are in high demand.

4.2.4 The Urbanisation Process in Thailand

There have been remarkable social and economic shifts in Thailand since the 1970s, with the nation experiencing ongoing development of its industrial base and a continuing urbanized. Rural-urban migration, urbanisation, and increases in the size of nuclear families are some of the corollaries of this growth (Friend et al., 2016). The data presented in Table 6 indicates that, in 2014, the percentage of the Thai population who lived in cities stood at 49 percent, a rise of 20 percent since 1990. It is estimated that, by 2050, the figure will have risen to 72 percent. This increase in the urban population is occurring at unprecedented levels across Southeast Asia, with the greatest mean shifts being seen in Laos and with Thailand in second place. According to World Bank (2015), Thailand's major progress towards becoming an urbanised nation began after the year 2000. Between 2000 and 2010, Thailand's urban area grew from about 2,400 square kilometres to 2,700, representing an average annual growth rate of 1.4 percent (World Bank, 2015).

Table 6 Urban and Rural Population in Southeast Asia Countries

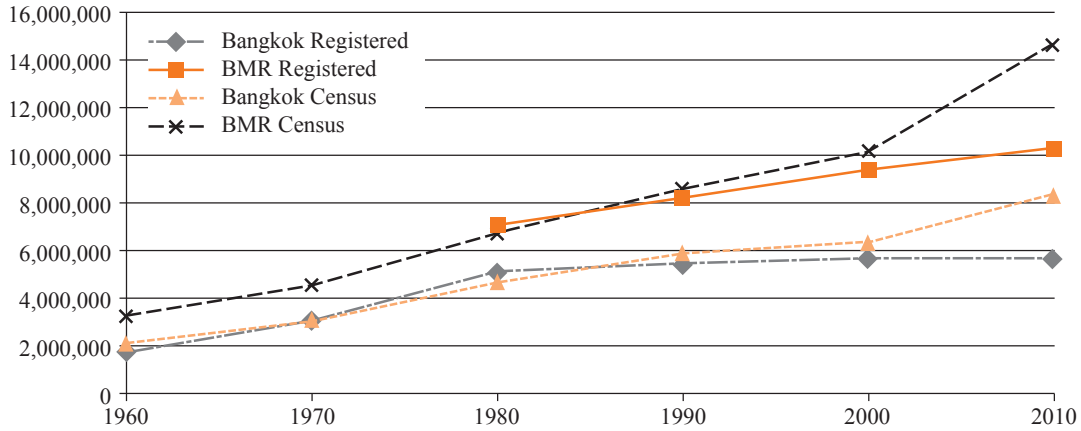
	Urban Population (000's)			**Rural Population (000's)**			**Percentage of Total Urban Population**			**Average Annual Rate of Change (%)**
Country\Year	1990	2014	2050	1990	2014	2050	1990	2014	2050	2000-2015
Cambodia	1,408	3,161	8,167	7,649	12,247	14,022	16	21	36	0.9
Lao PDR	655	2,589	6,435	3,589	4,305	4,144	15	38	61	3.1
Myanmar	10,350	18,023	32,206	31,773	35,696	26,439	25	34	55	1.6
Thailand	16,649	33,056	44,335	39,934	34,167	17,046	29	49	72	2.7
Vietnam	13,958	30,495	55,739	54,952	62,053	47,958	20	33	54	2.0

Source: Friend et al., (2016, p.18)

The urbanisation process in Thailand was stimulated by in-migration to urban areas, and was concomitant with the transformation of housing conditions in the country as well as its demographics. Bangkok and its peripheral areas have been the focus of national development with the provinces being largely ignored (Krongkaew, 1996). Thus, the status of the BMR has grown and large numbers of people from across the country are pulled towards the capital. Urbanisation has, however, spread to the five adjacent provinces around Bangkok. The fact that close to 50 percent of Thailand's GDP emanates from the BMR is a testament to the area's importance. The result is that the BMR, and the BMA in particular, have a high population density and are thus subject to overcrowding. Notably, in 2014, an estimated 13 percent of the Thai population resides in Bangkok, which covers less than 1 percent of its land area. When compared to the remaining parts of the country, the population density of the BMR is high at 1,337 people per square kilometre, although there is an average of 128 people per square kilometre in the country as a whole. In Bangkok, the population density is 3,630 persons per square kilometre (Friend et al., 2016).

Over the last 40 years, development in Bangkok has spread out from the boundaries of the city to other areas in the BMR. This happened first in the northern provinces of Pathum Thani and Nonthaburi, but it has also continued to the south into the province of Samut Prakan. Figure 5 demonstrates clearly that, although the population of Bangkok city has remained largely the same over this period, the population of its Metropolitan Region has increased. Heeckt et al. (2017) have argued that robust planning for urban development must take into account population increases not only in the city itself but also in the wider metropolitan region.

Figure 5 census populations of Bangkok and the BMR between 1960 and 2010



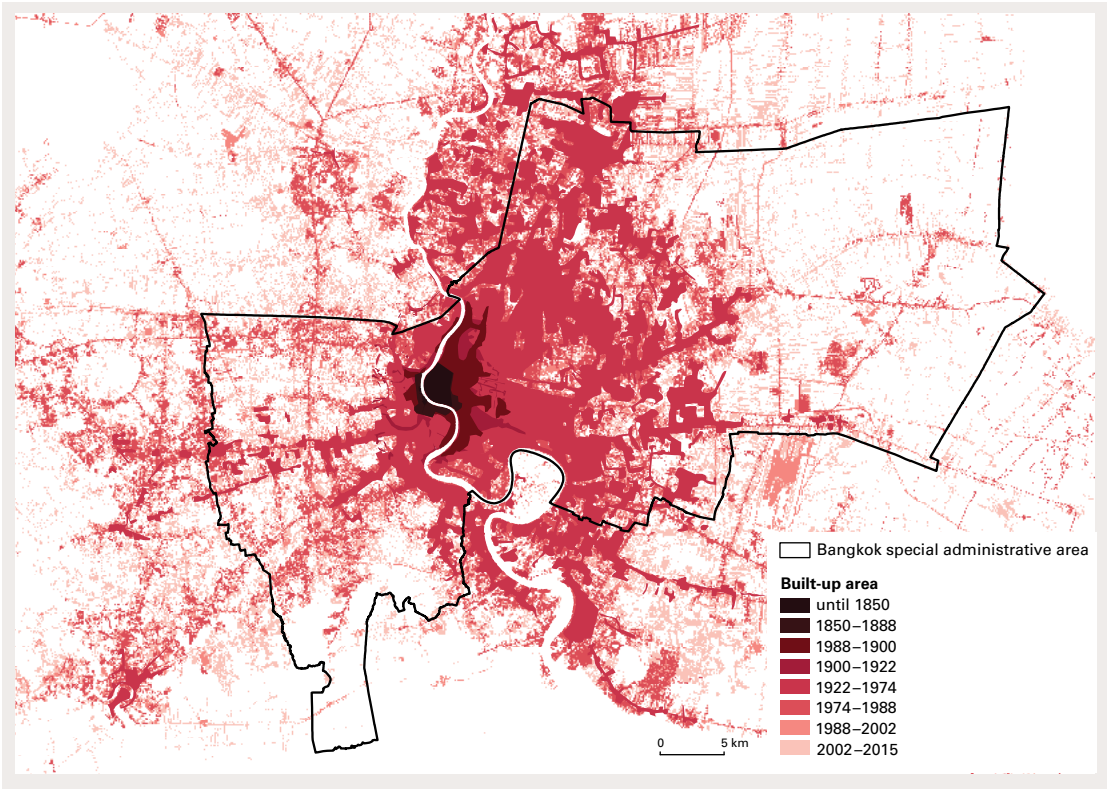
Source: Lambregts et al., (2015)

According to BMA (2013) and Supatn (2011), the proportions of land in Bangkok used for the following purposes in 2011 were: 29.6 percent for commercial, industrial and governmental use, 23.6 percent for agriculture use, and 23 percent for housing use. As shown in Figure 6, Bangkok has expanded in accordance with a ribbon development model (LSE Cities, 2016), with developments to provide for the increasing population of the city, along with industrial and commercial requirements, spreading along newly-built roads. The development in fringe areas has made the boundaries of each province within the BMR less distinct.

As shown in Figure 6, the increase of the urban area has recently spread beyond the BMR into the eastern province of Chacheongsao and the northern province of Ayutthaya. As a result of their proximity to the nation's two most important airports (Suvarnabhumi International Airport and Don Mueang International Airport) and to the Port of Bangkok, development in these provinces has mostly taken the form of industrial estates. As Heeckt et al. (2017) and Supatn (2011) have pointed out, such

developments outside the boundaries of the BMR experience less traffic gridlock and the cost of land is cheaper, factors which have appealed to investors.

Figure 6 The Expansion of Bangkok 1850-2015



Source: LSE Cities (2016, based on Lincoln Int data)

The evident presented in this section clearly demonstrates that urbanisation in Thailand is entering a new phase. UNDP (2014) estimates that by 2050 Thai urban population will have attained 72 percent. Friend et al. (2016) have argued that this period of rapid urbanisation will lead to an increasing reliance on infrastructure and technological solutions, along with a rise in links between the various urban networks within the region. Thai housing market characteristics are discussed in the following section.

4.3 The Housing Context in Thailand

The key economic centres in Asia have extremely diverse property markets due to varying regulations and control with regards to foreign developers. According to scholars such as Seek (1995) these differential property markets are further a result of divergent city layouts and the different ways in which developers operate in the respective countries. Property development is often associated with the movement of capital around the world and often plays a part in establishing economic hubs such as Bangkok. As stated by Wu (2000) such economic hubs appear to have similar characteristics and skylines however they are each marked by a complex and varied history. In this section, the various changes that have occurred in Thailand's housing market, particularly Bangkok are delineated. The section further explores the trends of housing provision in Thailand in a chronological manner.

4.3.1 History of Housing Development in Bangkok and Thailand

According to UN-HABITAT (2008), housing development in Thailand can be divided into three major periods: prior to the financial crisis (1990-1996), during the Asian financial crisis (1997-2001) and the recovery from the financial crisis (2002 onwards). In order to gain a comprehensive understanding of housing development in Bangkok, it is necessary to examine Thailand's housing provision. It is imperative to highlight that there were very few private developers in Thailand before the 1960s and it is only over the past five decades that housing in Thailand has developed.

The first 150 years of housing development in Bangkok (1780s-1930s)

Bangkok was established in 1782. In the 150 years that followed, public or private housing provisions were few and far between. Development was virtually non-existent from 1782 until the 1880s. Between the 1880s and 1932, a large number of roads were built and the Town and Country Planning Act was adopted and implemented. The typical housing provision of the 1920s was residential land sub-divisions (UN-HABITAT, 2008).

In 1932, the Town Planning Act came into being although the Town Planning Office was only created thirty-three years later. The Building Control Act was implemented in 1933 and then later amended in 1979. Few other housing provisions, either legal or governmental, existed at this time and the housing market itself was still yet to be established (UN-HABITAT, 2008).

Housing development following the Second World War (1940s – 1960s)

During this period the rebuilding and increased provision of public housing formed the core of the government's key duties. Private sector investment continued to occupy only a small part of the housing development market at this time. To deal with housing provision in Bangkok, the government established housing development units and a Government Housing Bank (GHB), which formed part of the Ministry of Finance (Chiu, 1984).

The Department of Public Welfare in the Ministry of Interior was the government's first foray into providing the general population with housing. Building housing through rural resettlement schemes formed the principal focus of the division (NHA,

1978). The Public Housing Act was implemented in 1942. The further division of the Public Housing Office was created in 1951. This division was charged with constructing social housing in Bangkok targeted at the rental market (Chiu, 1984). GHB was set up in 1953 with the initial goal of creating housing units for sale on hire-purchase schemes. The primary task of the GHB did change over time and later, the institution became responsible for providing housing loans to the general public for owner-occupied properties (Nitaya & Ocharoen, 1980).

Housing development in Bangkok during the industrialisation period (1950s – 1970s)

The industrialisation of Thailand began at the close of the 1950s. Import substitution prompted a strengthening of trade and the population of Bangkok increased (Chiu, 1984). Private land sub-division in the private housing sector continued. The Thai government made its first foray into city planning in 1958 when it employed Litchfield Whiting Browne and Associates, a US consulting team, to produce a city structure draft plan for Bangkok. The Litchfield Plan was implemented in 1992, a full six decades after the Town Planning Act was enacted. Law enforcement and the betterment of certain groups were hindered by this significant delay (Dowall, 1992).

In an attempt to meet Bangkok's housing needs, the government attempted to appeal to investors. Aroonakasikorn et al. (1996) have noted that the Revolutionary Party Decree No, 49 of 1959 invalidated Article 34-37 of the Land Code (1954) all of which related to the boundaries of land ownership in the country. By invalidating these articles, the government was able to attract more industrial and agricultural investment on the outskirts of Bangkok. A key initiative taken by the DPT (1960) in

the development of Bangkok was the improvement of slum areas. In their draft plan, the consulting firm's recommendation was that these areas should be dismantled (Dowall, 1989). A further government initiative was the construction of social low-rise apartments for low-income groups (NHA, 1978). The sole type of private housing available during this time was private land subdivisions through which individuals constructed their own houses (Rodpai, 1986).

The rise of private housing developments (1970s – 1990s)

The late 1960s heralded in Bangkok's first era of formal and modern housing. The first turnkey properties, furnished housing units, became available in the single and detached houses forms (World Bank, 1993). The decrease in land sub-division schemes was followed by the creation of detached houses. A number of housing projects emerged as a result of the rise in the popularity of detached houses among middle-income groups (Seik, 1992).

The government merged the Slum Improvement Office under BMA, the Public Housing Office, the Public Welfare Housing Division and the NHA (created in 1973 as a public enterprise under the purview of the MOI). It now had two chief mechanisms for housing, the NHA (acting as a developer) and the Government Housing Bank (acting as loan provider for home-buyers in particular) (Chui, 1984).

The first oil shock of 1973 led to a rise in the price of building materials and labour. As the cost of houses rose, townhouses and condominiums were introduced to the market for the first time (Roehner, 1999). The housing market had begun to recover in 1976. In 1977 the GHB expanded its loan service to include housing developers and

this was concomitant with further housing growth resulted. The GHB became the principal housing bank of the country as its interest rates were lower than those of other financial institutions (NHA, 1978).

The Building Control Act (1933) was amended in 1979 with the stipulation that all buildings require a construction permit from the local authorities who must subsequently issue a house registration number. Buildings could not access public utilities unless they had a registration number (Rodpai, 1986).

First formal national housing policy was created in 1983. This policy set a structure for the roles that private developers and government agencies would play in providing housing (Haan & Kuilen, 1986). Haan & Kuilen (1986) note that the policy also listed the functions of the GHB and the NHA who were mandated as responsible for implementing the policy. Unfortunately, the second oil shock of 1980 and the devaluation of the Baht compromised the Thai economy and suppressed the housing market (Haan & Kuilen, 1986).

Until the mid-1980s, the trend was to construct inexpensive housing units, townhouses in particular, with a one-story townhouse. An increasing number of people were thus able to afford housing due to the dual effect of a growing economy and inexpensive housing (Sheng, 2002).

The beginning of the Gulf War in 1990 brought the real estate boom to an end. In 1995 there was a huge amount of speculation on the housing market. According to AREA (2003), 50 percent of the unoccupied housing units in the BMR were

condominiums. This contributed significantly to the deterioration of the real estate market and its ultimate collapse (AREA, 2003).

The Financial Crisis Period (1997- 2001)

In 1997, the previous insistence on the protection of the baht was dropped by the Bank of Thailand in favour of a floating exchange rate. The changes to the global economy had a negative impact on Thailand's housing sector, due to the increase in real estate prices and decrease in wealth (Sheng, 2002). Chaisang (1997) illustrates that the price of real estate suffered a sharp decrease with the flailing economy. Property developers then became the main focus. The rising interest rates and crawling economy retarded the market, and prospective home owners already tied into contracts began to withdraw down-payments. Following this, banks and other lenders were hit by the financial crisis. Eventually, a large number of lenders suffered bankruptcy, due to the inability of property developers to repay the large loans they had secured from them; especially in the case of big development companies, which had been investing in foreign real estate via domestic borrowings (Sheng & Kirinpanu, 2008). Agus & Doling (2002) note that the housing sector played a role in the economic crash although it was not the only driving force of the problem. The impact that the housing sector had on banks and private enterprises are recognisable. In order to recover from the financial crisis, Thailand welcomed the assistance of the IMF via its rescue package (Agus & Doling, 2002). Table 7 summarises a timeline of housing development in Thailand and major influential events.

Table 7 A Chronological Timeline of Housing Development in Thailand

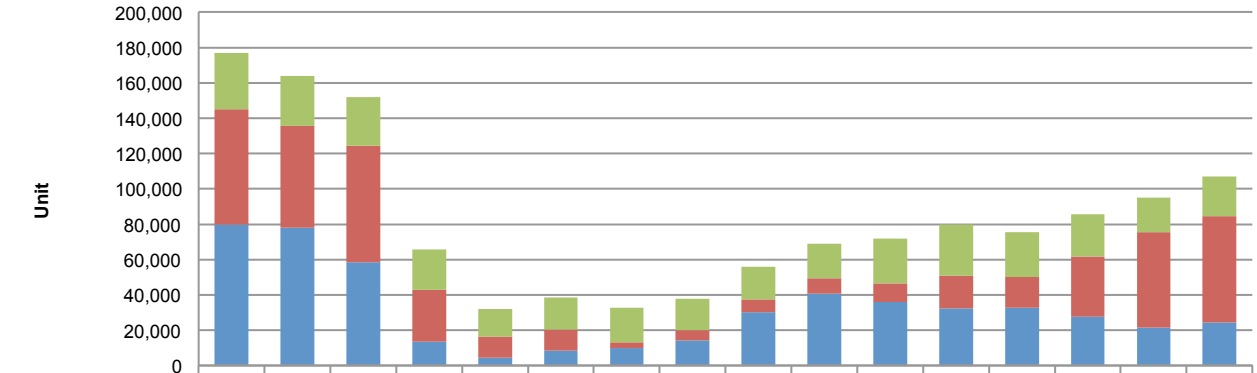
Year	Events
After 1945 (World War II)	Public housing provided by the government
1959	Restrictions on the ownership of empty land, agricultural and industrial investment promoted
Early 1960	Apartments, relocation of over 10,000 slum dwellers
1960	Buy a parcel of land (household) and build a house
1963	Public housing apartments for low‐income urban population
Late 1960	Detached houses on private service plot of land
1950 - 1967	Government plays a central role in housing development
1968 - 1975	Turnkey housing units, ready‐to‐move‐in units
1970 - 1984	Townhouses and condominiums
1973	• Formation of Government Housing Bank (GHB) and National Housing Authorities (NHA) • First oil shock crisis and resultant decline in economy
1980	• Second oil shock crisis • IMF#1
After 1980	• Baht Devalues#1 • Increase in labour and material costs
1983	First formally national housing policy framework delineated
1986 - 1990	• Foreign investment, particularly from Japan • Urban fringe: from agricultural land use to factory sites and townhouses projects • Inner city: low-income housing plots to condominium projects
1991 - 1996	The Gulf War and drop in housing value
1997	• The Asian financial crisis: the decline of economy and real estate sector • Baht Devalues #2
1997 - 2002	• Debt restructuring and old projects rebuilt, recovery period • IMF#2
2002 - 2007	Boom in condominiums projects along rail transit routes
2007	Subprime mortgage meltdown accompanied by economic decline
2007 - 2010	Political instability accompanied by low growth rate
2011	Great Flood crisis in Thailand particularly in the BMR
2012-2015	• Political instability (Junta & Martial Law) • Housing demand returning to the market and steady growth

Source: Manotham (2010); GHB (2017)

4.3.2 The Current Housing Market in Bangkok

In Thailand overall and in the BMR in particular, real estate primarily consisted of housing and housing in the BMR represented 70 percent of the country's total housing stock. The housing market in Thailand has recovered from the financial crisis. As shown in Figure 6 BMR housing between 2001 and 2010 has consistently increased. The data indicates growth in the number of housing units at a rate of approximately 13 percent for the last 10 years.

Figure 7 Newly Completed and Registered Housing Units in BMR



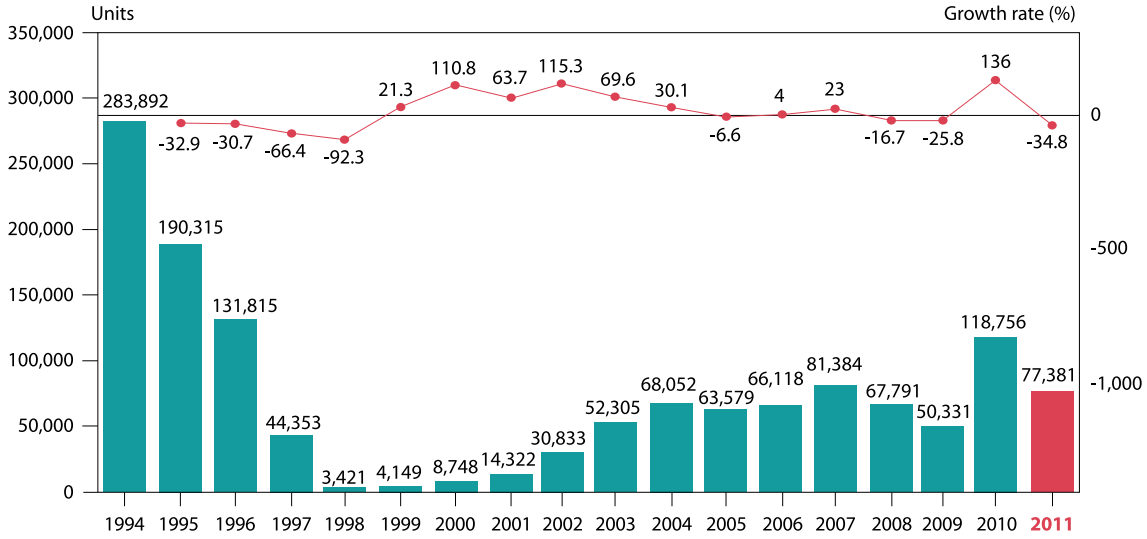
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Self-Built Housing	32,118	28,059	27,418	22,716	15,497	18,064	19,639	17,693	18,598	19,859	25,244	28,949	25,341	24,017	19,618	22,498
Apartment & Condo	65,207	57,801	66,086	29,666	11,978	12,187	3,320	5,769	7,354	8,490	10,534	18,607	17,432	34,049	53,725	59,919
Housing Project	79,824	77,982	58,376	13,360	4,469	8,331	9,691	14,371	30,088	40,752	35,935	32,201	32,757	27,513	21,634	24,476

Source: Bank of Thailand (2011)

As a result of the 1997 Asian crisis, the Thai property market slowed down between 1997 and 2003. Since 2003 however, property developers have been intentional about filling any housing deficit as a result of those 5-6 years of inactivity. As Figure 7 denotes, between 2003 and 2005, the quantity and value of the housing units launched was equivalent to the numbers before 1997. This indicates that the number of housing units launched during the financial crisis period dropped suddenly. Yet growth was substantial before the financial crisis period and from 2000 to 2004, the value of new

development projects increased by 100 percent annually and consistently grew slightly afterward until 2010.

Figure 8 Newly-launched Housing in the BMR (1994-2010)



Source: CBRE (2012)

More recently, housing developers have become cautious and are aware of the problems of creating a housing surplus (CBRE, 2012). Thus, in 2011 the number of housing units launched decreased (see Figure 7). As a caveat, the decrease in housing provision was not symptomatic of a problem with the housing market as had been the case in 1997, but simply an adjustment of the market.

Location is a key consideration in new housing developments. New projects were previously generally constructed in areas where land was less expensive, i.e. the suburbs. This kept the price of housing competitive. More recent housing developments have been built closer to the cities and tend to border significant new road and BTS as well as MRT systems which offer high development potential. Thus,

in an effort to ensure saleability, more attention is now paid to the location of developments (CBRE, 2016).

Table 8 presents the proportion of home-owners in BMR in 2010 which as indicated, stood at 51 percent with the remaining fraction of occupants being renters. As Pornchokchai (1998) notes, Bangkok is home to a large number of temporary migrants in search of work. Some of these migrants may think about remaining in Bangkok long-term but not many studies of this phenomenon exist.

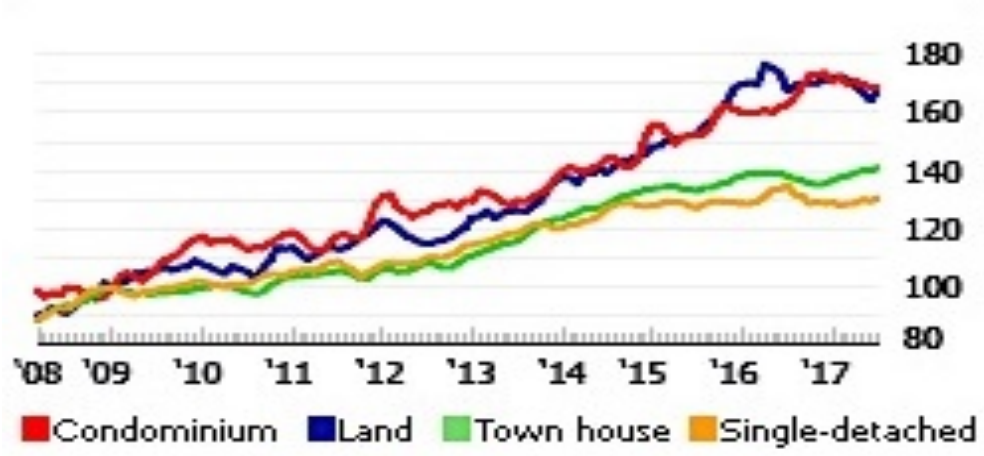
Table 8 Occupancy Status in 2010

Occupancy status	Thailand		BMR	
	No. of Households	Percent of Total	No. of Households	Percent of Total
Owns dwelling and land	16,803,267	77.5	1,923,065	43.2
Owns dwelling on rented land	823,902	3.8	347,220	7.8
Rents	2,601,796	12.0	1,633,715	36.7
Occupied rented free	1,452,670	6.7	547,539	12.3
Total	21,681,635	100	4,451,540	100

Source: Data Processing Centre, The Bureau of Registration Administration, Department of Provincial Administration (2011)

Figure 9 indicates that property prices have risen very modestly in Thailand in the past several years, in part, as a result of political imbalances in the country. It is quite telling that between 2008 and 2016, house prices only rose by 29.1 percent.

Figure 9 Housing Price Changes Between 2008 and 2017 (2009=100)



Source: Global Property Guide (2017)

4.3.3 The Condominium Market in Bangkok

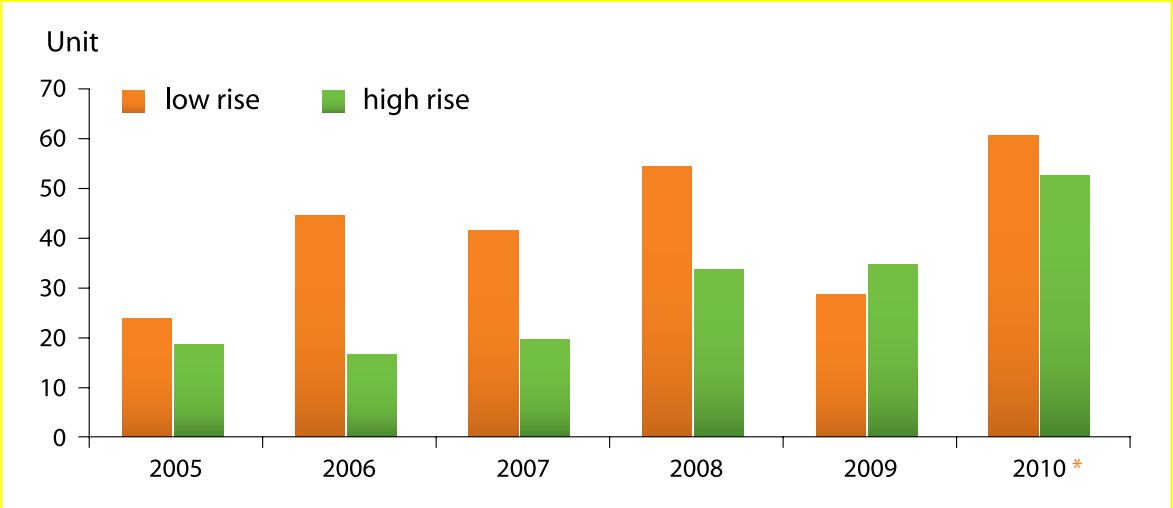
Thailand's first law concerning condominiums, the Thailand Condominium Act 1979, was passed in 1979 and enacted in 1982 (see section 4.6.2). Ever since the Thai Condominium Act 1991 was enacted, blocks of condominiums have become the domestic counterparts of the modern residential skyscrapers. For the centres of the various Asian metropolises, they are a visual reminder of the thriving property market, answerable for much of this region's growth (Askew, 2002).

The popularity of the development of condominiums has attracted significant academic interest, largely because it relates to how the scarce resource of land can be exploited to the greatest advantage in this age of cities. Indeed, some (see Haila, 1997) have deemed them to be a key part of how cities operate internationally, important for promotion and funding.

The spatial structures of the inner cities of Thailand based around the past, used and a range of actors of particular areas. This part of the study explores the condominiums

which have been built in Bangkok. This new wave of development is considered in conjunction with the past features of the areas in which the high-rise and low-rise condominiums[5] have been built under the planning and EIA enforcements (Askew, 2002). Figure 10 illustrates that low-rise condominium projects have surpassed high-rise condominiums. This research is investigated in detail in chapter 6.

Figure 10 Condominium Types from 2005 - 2010



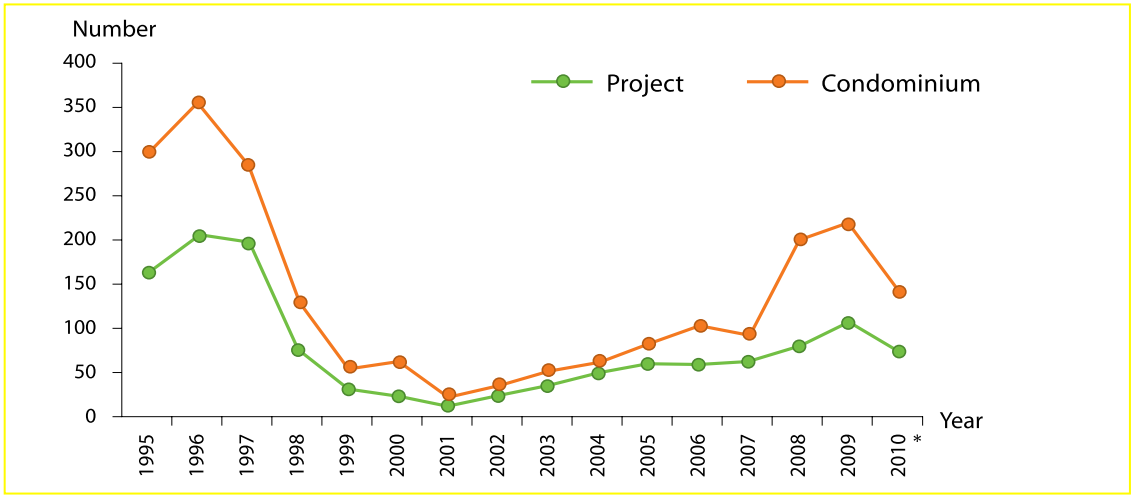
Source: Real Estate Business Promotion Bureau, Department of Lands (2010)

The condominium is often in the form of a high rise. High-rise condominium developments have become entirely typical in how a metropolis will grow upwards (Askew, 2002). Figure 11 shows that the condominium has the highest number of built units compared to self-built housing and housing projects before the financial crisis (before 1998) and after the market recovered from the crisis (since 2008). The factors relate to: first, continuous increases in the demand for central property causing original owners to sell their land to developers; second, buildings expanding upwards as developers seek to maximise the returns on their payments for expensive plots of

[5] Low-rise condominiums are categorised as having eight floors or less (GHB, 2011).

land; third, government policy choosing to encourage investment by allowing investors to have an interest in new developments (Askew, 2002).

Figure 11 Number of Projects and Number of Condominiums (1995-2010)



Source: Real Estate Business Promotion Bureau, Department of Lands (2010)

Factors particularly concerned with demand include; significant investment in office premises from firms, bringing a wave of demand from their comparatively well paid employees and demand for properties in proximity to the central offices, exacerbated by mobility problems due to traffic congestion. This meant that those who can afford to are eager to live as close as possible to their workplace to avoid a troublesome commute (Pornchockchai, 2006).

After such extensive development, there was a clear spectrum in the market and each section aimed at a different consumer. Those which were particularly prominent were the luxury condominiums and those designed to house low-middle income individuals. At this time, there was not a large market for middle to low incomes neither a particularly middle or low income, indicative of how this class preferred to live further out, rather in the centre.

There was a high increase in the price of high-end condominiums and business premises of around 300-400 percent between 1985 and 1990 (Jackson, 1995). In 2015, the luxury condominiums were worth an average of approximately £43,000 for an average floor space of 120 square metre. Low-income housing on the other hand cost between approximately £10,000 and £14,000 for a floor space of 20-40 square metre (Tangmatitham, 2011). The low-income condominiums were in the cheaper, less central area of the city with many competitors choosing to create this type of residence (Seik, 1992). Therefore, the landscape of the city is the one which has experienced such significant changes (explained in chapter 6). Table 9 shows price ranges of each condominium type.

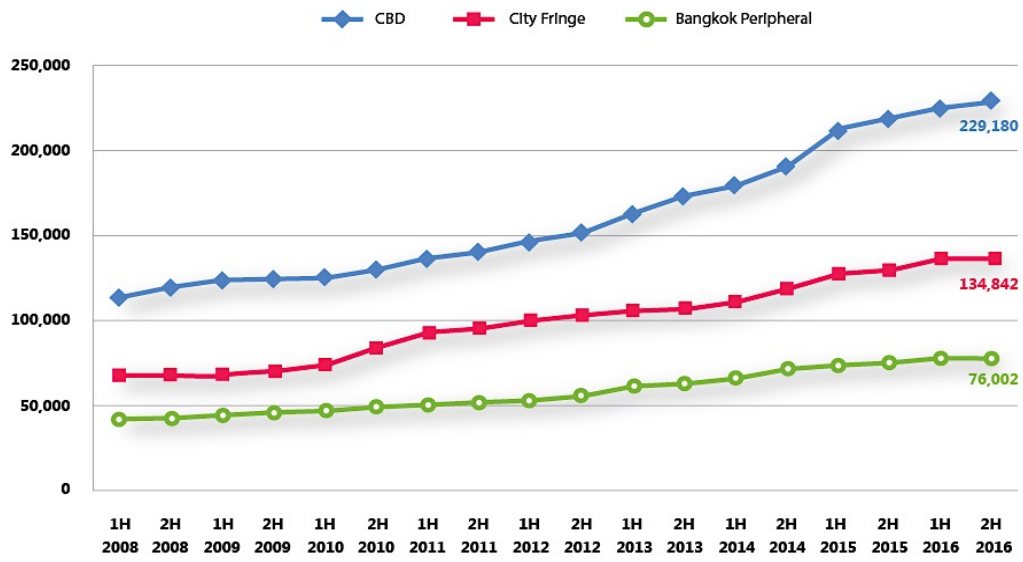
Table 9 Classification of Condominium Price

Type	Price
Super Luxury	Above £5,000/m²
Luxury	£3,400-5,000/m²
High End	£2,400-3,400/m²
Up Scale	£1,800-2,400/m²
Mid-Range	£1,400-1,800/m²
Entry-Level	Below £1,400/m²

Source: CBRE (2015)

In 2016, the prices of newly launched condominium projects continued to increase throughout Bangkok but at different rates according to the location. The average selling price of condominiums in the CBD was £4,585 per square metre, which is the equivalent of an increase of 5.3 percent. The average selling price of city fringe condominiums also increased by 4.8 percent to £2,697 per square metre and the average selling price of condominiums in the peripheral area of Bangkok similarly increased by 3.6 percent to £1,520 per square metre (see Figure 12).

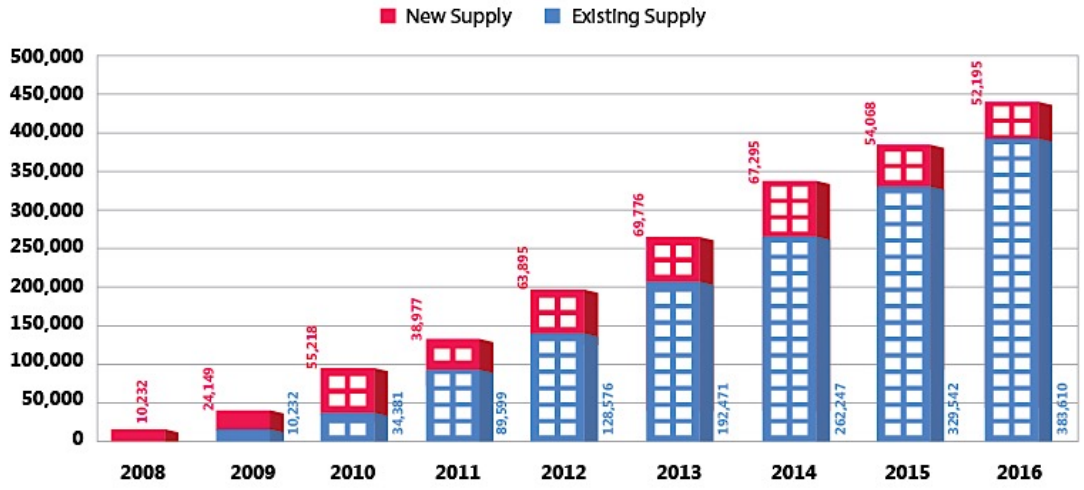
Figure 12 Bangkok Condominium Average Selling Price (Thai Baht), 2008-2016



Source: Knight Frank Thailand (2017)

Frank (2017) notes that the Bangkok condominium supply at the end of 2016 amounted to 435,805 units, 52,195 of which were launched in 2016. This is tantamount to an increase of 13.6 percent from 2015 (see Figure 13).

Figure 13 Supply & New Supply of Bangkok Condominium, 2008-2016

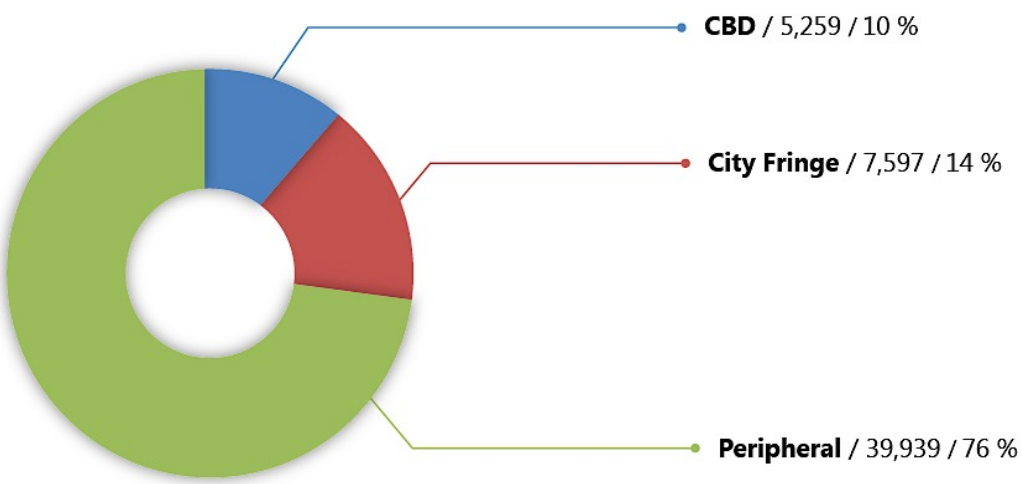


Source: Knight Frank Thailand (2017)

The majority of the new housing supply stemmed from big developers who were investing in the market for future revenue; the high supply of housing is not reflective of the recovery of condominium demand.

It is estimated that 76 percent of new developments were still located in the peripheral Bangkok area, while 14 percent of new supply were in the city fringe area. Further, the data indicates that 10 percent of new supply in 2016, were located in the CBD as shown in Figure 14.

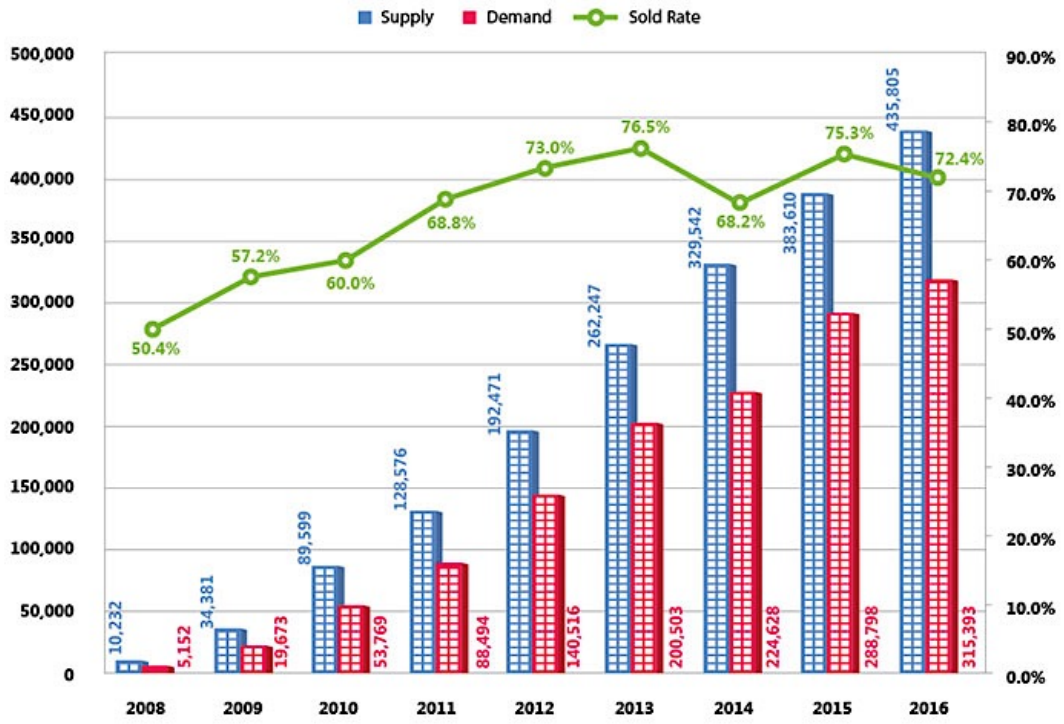
Figure 14 New Supply by Location 2016



Source: Knight Frank Thailand (2017)

Approximately 315,393 condominium units were sold out of 435,805 units, representing a sale rate of 72.4 percent which is a slight decline from the previous year during which the sale rate was 75.3 percent. Only 26,595 units of condominiums were sold in 2016, marking a 59 percent decrease compared to 2015 during which approximately 64,170 units were sold (see Figure 15).

Figure 15 Supply, Demand and Sale Rate between 2008-2016



Source: Knight Frank Thailand (2017)

In summary, Thai people traditionally prefer to purchase their own homes as opposed to joining the rental market. Specifically, they have historically demonstrated a preference for detached housing. However, in recent years, it is clear that traditional preferences are changing particularly in Bangkok and its peripheral areas. In these areas, condominiums have gained traction and there is an increasing variety in the types of housing available according to price and location. Mass transit systems such as the BTS and MRT have simultaneously driven demand for condominiums units in proximity to stations. It is argued that if these current socio-economic trends continue, then the future housing market will not only expand at a rapid pace; it will also be more varied by location, size, quality and price to meet changing demands.

4.3.4 Housing Categories and Income Levels

This section explains the relationships between the housing prices, types, and income levels. O'Sullivan (2007, p.292-293) proposes that housing can be categorised as low-, medium-, or high-end, often reflecting the income level of its residents. Additionally, a higher-class dwelling can take the place of a lower-class dwelling if demand is high enough. This being said, the likelihood of substitution in Bangkok is low. This is because each type of residence is constructed and designed for a specific type of resident. Furthermore, housing classified under one company is priced too differently to housing priced in other companies. Given this, Choiejit & Teungfun (2005) explain that buyers considered to have middle-incomes are unable to afford high-end housing even if the price drops, and low-income earners are unable to afford medium-end housing even if the price drops by one rung. In an ideal market, supply and demand are balanced out over time. However, as Sahachaisaeree (2008) and Pornchokchai (2005) explain, this cannot be achieved if each class of housing is unable to replace another.

High-end housing projects exists all over Bangkok. High-end housing is classified based on the attributes of the neighbourhood and not overall location (Manotham, 2010). For instance, individuals with high-level income may wish to live close to work or in the CBD area. On the other hand, with greater purchasing power, they may prefer to live away from the city, in a quiet suburb. Therefore, as Atkinson-Palombo (2010) explains, high-income housing must be built with these specific factors in mind. These housing developments typically offer benefits such as convenient infrastructure, green space, strong security, an on-site gym, a swimming pool, and other facilities. In many cases, this type of development is placed near to major

shopping areas or educational institutions such as schools and universities (O'Sullivan, 2007). It is likely that high-end condominium prices will continue to increase given the lack of prime land available for developers to buy (JJL, 2015). Consequently, investors are also keen to secure long-term profit by purchasing high-end condominium developments in these prime locations.

The medium-end housing market is particularly competitive, especially since the overall housing market is hugely represented by the private sector in Bangkok. Consequently, as Pornchokchai (2002) explains, developers must now strike a balance between minimising costs in order to offer a reasonable price to homeowners whilst also ensuring that enough quality is provided for this class of buyer. Sharkawy & Chontipanich (1998) point out that the majority of medium-end housing developments are situated in the suburbs and around the edge of the city. Some have suggested that urban expansion has been experienced as a result of the rise in medium-end development projects over the years. Developers select locations based on access to transportation links, popular working areas, and nearby towns and villages. Hara et al. (2010) add that middle-income buyers tend to be more focused on price than any other factor, whilst high-income buyers are more concerned with the presence of luxury facilities.

Lastly, low-income households are comprised of two subcategories of people. The first category represents office workers, factory workers, market stall owners and junior government officers. These people typically have a low but stable income. Low-end housing is accessible to this group due to the rise of high-density, high-rise buildings, public housing initiatives, and cheaper construction as a result of technological development.

A JLL report (2015) indicates that the housing market in Bangkok in general will experience significant growth in the coming years due to urban migration and the expansion of the middle-income group. Such a continued momentum from developers seemed to be in anticipation of what they perceived to be the time for middle and lower income families to purchase homes closer to the centre of Bangkok. Indeed, it was clear that many office workers were extremely keen to live closer to their workplaces. Condominiums in Bangkok are available at prices and sizes that make them attractive to middle-income groups (Colliers, 2013). The expansion of the urban area and the ever-increasing cost of land has affected the popularity of condominiums.

The increase in middle-income groups on the market, moreover, has led to a higher demand and price for condominium properties. A trend inherent in this climate is that middle class buyers are then driven to seek cheaper properties in existing, older housing sites which are located further away from the CBD or in the peri-urban areas where housing is deemed affordable. The Bangkok Post (2015) reports that much of this demographic could not afford the central condominiums, instead, purchasing those that were built somewhat further out. Nowadays, a number of people are purchasing older homes away from the city's BTS and MRT lines and further from the CBD as a result of the increase in land and unit prices (JJL, 2015). The research reveals that older sites offer condominiums 20-30 percent less expensive than new-builds in the same neighbourhoods (JLL, 2015).

In summary, housing development projects have been an issue, with Yap (1996) reporting that construction has taken a long time due to multiple changes in many factors and a lack of focus in government objectives for these projects. It can thus be

argued that the housing market and location of housing developments are impacted by public policy regarding land use patterns, urban structure, building control, and particularly EIA (discussed in chapter 6).

4.3.5 Informal Housing in Thailand

Informal housing is a critical issue in housing study in developing countries. Informal housing in this study refers to slums and squatter settlements. Even though these settlements are marginal actors in the real estate market in Thailand, they still play a role affecting the housing supply and demand market. Thus, it is worth exploring. The study in this thesis, however, only focuses on the formal housing units. While there is a lack of recent data on Thailand's slums, it is widely assumed that the situation has not changed much since the 1990s. In 1990, the total slum population in Thailand was 1,763,872, which represented 3 percent of the total population. These figures suggest that slum development is not prevalent in Thailand. Of the total slum population, it is worthy to note that the majority was concentrated in Bangkok or 62 percent. An estimated 22 percent of slum dwellers are located in the BMR (excluding the BMA) while the remaining 16 percent are dispersed across other urban centres in the country (UN-HABITAT, 2008). The underpinning cause of the concentration of slums in Bangkok, stems from the pull factors that drive in-migration towards the city, which serves as the hub of socio-economic and political activities (UN-HABITAT, 2008).

Between 1985 and 2000, the number of slums in BMR decreased from 1,020 to 866 or by 15 percent (NHA, 2000). According to UN-HABITAT (2008), there was a massive decrease in the number of people living in slums. In 1958, it was estimated that 46 percent of the Bangkok population lived in slums. By 1994, the figure had

declined to 6 percent (AREA, 1999). Over the past 25 years, there has been a marked decline in the slum population, mostly as a result of massive formal housing development in a market (Pornchokchai, 2006). The increased provision of formal housing in the BMR and the general increase in the supply of the housing stock instigated a reduction in rents and further provided an alternative means of housing. Slums no longer served as the primary option for rural migrants (AREA, 1999).

4.4 Stakeholders in the Housing Sector in Thailand

There are a myriad of public and private actors in both the supply and demand side of Thailand's housing market. These actors stem from national and local government organisations, banks, private developers, and management companies. In Table 10 and Table 11, the key stakeholders in the housing sector are delineated. Table 10, Table 11, Table 12, and Table 13 further describe the approximate operational frameworks of the various actors.

4.4.1 Private Sector

Bunnag (1985) distinguishes six periods of private housing development until 1984, when the NHA abandoned its direct construction of low-income housing. The first period (1957–1967) was accompanied by the emergence of land developers who divided and developed vacant plots of land after which properties were sold to low- and middle-income families. Initially, such plots were popular, however problems with the infrastructure and the title deeds meant that this interest soon waned. Up until the 1960s, private developers launched few housing developments but they were proactive and by the 1970s, the private sector was playing a bigger role in the housing market.

The second period (1967–1973) saw the rise of housing project developers. They leveraged the availability of housing mortgage loans from commercial banks and good economic conditions in the country further promoted the expansion of the sector. Three types of housing developers operated in the market: (a) land development companies who had expanded into the housing development trade, (b) professional housing developers, and (c) building contractors specialised in shop house construction who had transitioned into housing development (Durand-Lasserve, 1983). Initially, only a few private developers provided housing units, most of which were single detached homes aimed at high-income earners.

During the third period (1973–1976), housing development declined. The National Executive Decree No.286 imposed high operational costs in an attempt by the government to gain control of land allocation for housing, and to protect the interests of purchasers. The rise in operational costs was due to the obligation on developers to provide adequate and appropriate facilities (Laothamatas, 1988). This period coincided with the first oil crisis in Thailand, and the cost of housing increased.

During the fourth period (1976–1979), housing project development boomed again, with the GHB playing an important role in the promotion of private-sector housing development. Row houses and town houses gained traction in the market and they were quite popular with middle-income families.

During the fifth period (1980–1982), in an attempt to expand housing stock and in the belief that the state should control economic policy, in 1980, the government promoted the role of private sector in housing development through the agenda of the

Joint Public-Private Consultative Committee (JPPCC). The provision of private sector housing was also buoyed by updated housing credit facilities (Chenvidyakarn, 1979). Substantial private sector housing developments were initially quite expensive due to high operational costs. Thus, the financial feasibility of these developments was low. As a result, private developers focused on smaller projects. These projects were located in urban areas on the outskirts of Bangkok where the population had grown and better transport and communication facilities had been created near to industrial work spaces (Sheng, 1989).

The sixth period which coincided with the aftermath of the crisis, was accompanied by economic growth. Economic growth was concomitant with increased employment and income and Thailand's urban middle class grew rapidly, thus creating a renewed demand for housing. The GHB initially alone, later in competition with the commercial banks, extended loans to private-sector developers and homebuyers to support this demand.

After the sixth period, due to the fact that the higher-income housing sector was saturated, the private sector focused its attention on the lower-middle income groups that, for the first time, had the purchasing power to buy a house. According to Pornchokchai (2002), private developers focused on constructing townhouses targeted at low and middle income earners by decreasing the size of the housing units and the size of the plots they stood on. Yet, the rapid increase in costs meant that townhouse construction came to an end by the close of the 1980s. Yap (1997: cited in Yap & Kirinpanu 2000) states that developers now moved on to constructing condominiums located in Bangkok city and targeted at middle and high income earners. Pornchokchai (2002) notes that while this was occurring, the demand for affordable

condominiums was growing. These affordable condominiums were located on the outskirts of Bangkok as land was comparatively inexpensive in these areas.

Table 10 Private Stakeholders in Housing Sector

Field	Stakeholder	Business	Target Market
Housing Supply	Commercial Banks	Finance for developer	Housing Developer
	Private Developer	Construction	High – Low Income Group
	Housing Broker	Brokerage	High – Low Income Group
Housing Demand	Commercial Banks	Finance for homebuyer or investor	High – Low Income Group
Improvement of Living Environment	Real estate management Company	Real estate management	High – Low Income Group

Source: JICA (2013, p.24)

In summary, the first foray into private sector housing developments since the 1970s came to a halt as housing prices went up following a military coup, political disorder and the outbreak of the Gulf War. The second foray emerged following the election of the civilian government in 1992. In 1992, developers where given the chance to obtain financing from foreign investors as a result of a policy of financial liberalisation. Government regulations concerning land appraisal and Floor Area Ratio (FAR) were also enforced which strengthened the real estate market. The following year, incentives offered by the Board of Investment prompted the private sector to construct affordable housing units. According to Yap and Kirinpanu (2000), many large and small private developers consistently provided the market with more housing stock.

The private sector has led the growth of housing development. In 1974, private sector housing developments accounted for less than a quarter of total housing stock. The

proportion of private sector developments rose and was in fact the main form of housing in the BMR housing market until the real estate market collapsed due to the 1997 financial crisis (Pornchokchai, 2002). Thailand's recovery has led to another rise in private developments and Pornchokchai (2002) reports that since 2001, formal housing provided by the private sector now accounts for 95 percent of the total housing stock.

4.4.2 Public Sector

This section delineates the government agencies operating in the housing field with a focus on their responsibilities, resources and legal frameworks for action.

Beginning of Public Housing Development

Thailand's housing situation was highlighted during the beginning of Thailand's move towards urbanisation; particularly because there were a large number of slums in the nation's large urban areas. After 1932, land ownership and leasing was transferred from the monarchy to the public sector. Despite this, housing standards, city planning and land use changes were not managed effectively by the public sector, and modernisation incentives and funding took the lead in these areas (DOL, 2008) although slum development prevailed.

Between 1953 and 1972, the establishment of the following offices between 1953 and 1972: the Community Improvement Office, GHB, Housing Division and Housing Bureau was concomitant with the emergence of rigorous housing guidelines. The purpose of the GHB was to offer low-interest mortgages to organisations within the public sector. Additionally, housing demand had dramatically overtaken the ability of

the Housing Division and Housing Bureau to provide housing. Finally, the purpose of the Community Improvement Office was to rid certain regions of slums. Rather than working as one cooperative unit, these four agencies worked independently of each other (Usavagovitwong, 2012). In 1961, the NESDP was broadcasted, and the 3rd NESDP eventually had a negative influence on Thailand's national development. In turn, this resulted in Thailand's bureaucratic housing departments being reorganised (DOL, 2008). After some time, the management of housing in Thailand was transferred to the National Housing Authority (NHA).

National Housing Program (NHA)

The NHA was responsible for addressing the gap between housing availability and housing demand between 1975 and 1978. In order to achieve this, it offered citizens who could not afford other housing solutions the opportunity to obtain welfare housing in Bangkok. The policy was completely government funded, since its aim was to benefit low-income groups with a 5-year goal of providing approximately 120,000 houses to low-income citizens (Chui, 1984). However, Chiu (1984) reports that the project exceeded its construction budget significantly after just 3 years leading the Thai government to reduce its goal by more than 50 percent.

Its objective was to construct 50,000 dwellings and an overall completion of 25,600 dwellings by the end of the 5-year scheme. Eventually, the lack of funding resulted in the termination of the NHA. The Accelerated Plan (1978-82) outlined the redirection of the NHA's objectives following the financial struggle, introducing the need for foreign borrowing. Eventually, this resulted in the launch of a number of housing schemes, including slum development and inexpensive housing (NHA, 1978).

Affordable housing programs

This housing scheme began as a 'site-and-service' project, and was established by the NHA along with a number of financial and global development organisations (Yap & Wandeler, 2010). As a caveat, it was difficult for the NHA to obtain land since most of the free land was situated in rural and marginal regions. Almost one third of site-and-service activities represented housing policy, city planning, and land procurement. During these activities, it was predicted that a number of residents would need to be evicted from these areas, though a number of houses were empty and put on the market for sale (Pornchokchai, 1992). Because of this, the affordable housing scheme did not restrict the formation of further slums. Panichpakdee (2010) suggests that the reason for this was that a large number of residents faced too long a commute to work; that public transportation links in marginal regions were poor; and that the scheme failed to offer the type of stable housing that citizens were demanding. After 1982, the NHA became a charitable organisation and the site-and-service projects were terminated (Usavagovitwong, 2012).

The Sub-Committee on National Housing Development was commissioned by the NESDB in 1982, which aimed to encourage slum development through housing supply schemes. Housing supply incentives were addressed on an annual basis by the Sub-Committee, between 1987 and 1996. The 5th and 6th NESDP and HABITAT II formulated a basis for national housing policy, which aimed to offer housing for low- and middle-income citizens. Additionally, Government Housing Bank (GHB) operated in conjunction with the NHA to offer assistance to low-income citizens with construction funding from the Thai government. Panichpakdee (2010) reports that during 1970s and late 1980s, the NHA established an 'internal cross-subsidy', which

enabled the institution to obtain revenue from a number of schemes in order to supplement the loss of other funding. This eventually led the NHA to become engaged in the competitive housing market. These NHA schemes included mall development, new town projects, community housing, mixed income housing and rental properties (NHA, 2006). Over time, due to overwhelming demand for housing, the housing and construction sectors of Thailand have grown as the institution has become less of a public tool and more of a market-orientated system (NHA, 2006).

New direction of national public housing scheme

The Thai Rak Thai Party made an improvement to housing policy and housing schemes in 2003 although these were often regarded as populist in nature. The NHA and Community Organizations Development Institute (CODI) reconstructed certain government departments to operate under the Ministry of Social Development and Human Security. This led to a couple of housing schemes across Thailand. The first was the CODI-orchestrated 'Ban Man Kong (BMK)', which was a secure lease scheme aiming to impact 300,000 homes, and the second was the 'Baan Eua Arthorn (BEA)' scheme, facilitated by the NHA, which was given the mission statement of 'we care', and was aimed at 600,000 residencies (Usavagovitwong, 2012, p.11).

The BEA scheme's objective was to offer housing to low-middle income residents, and receive some government funding. Panichpakdee (2010) explains that the BEA scheme acted as a 'certified contractor' for private construction enterprises in order to succeed in its 5-year plan. Therefore, while the NHA was once regarded as a contractor for the public sector, it now acted as a regulator. After 4.5 years, housing oversupply brought the NHA's activity to a crawl. While the NHA had a target of

281,556 residencies (and had built 240,186 of these) and was outperforming its expected figures, approximately 1 in 5 residencies were yet to be sold by 2010. Therefore, the NHA struggled to stay afloat due to a differentiation in housing demand and housing supply (NHA, 2010).

The Rural Development Fund and UCDO established CODI in 2000. CODI's scheme, BMK, began 3 years later and was in full force by 2004. By this time, the BMK had a sole focus of providing stable tenancies to slums. The BMK scheme is resident-focused and operates on both a community and administrative level. At the administrative level, the BMK communicates with a number of local and state government divisions to promote the chance of obtaining secure tenancies for low-income residents. At the community level, the BMK aims to stimulate residents to take action on various housing development problems, such as community interaction and supervision, funding, negotiation, community politics, construction and planning (Boonyabancha, 2005). Table 11 shows the public stakeholders in Thailand's housing sector.

In summary, housing development and the housing market in Thailand is prominently dominated by the private sector as opposed to the government sector. However, the government still plays a salient role in the market via its policies which impinge on the sector at large. In terms of housing supply, the private sector has provided roughly 95 percent of the total current stock since 1973. Of the nearly 23 million housing units available nationwide, only between 700,000 and 800,000 units have been completed by the NHA, CODI, and other public housing providers (JICA, 2013).

Table 11 Public Stakeholders in Housing Sector

Field	Stakeholder	Business	Target Market
Housing Supply	National Housing Authority (NHA)	Housing construction	Mid – Upper Low Income Group
	Community Organizations Development Institute (CODI)		Lower Low Income Group
	Local Governments		Low Income Group
Housing Demand	Government Housing Bank (GHB)	Finance for homebuyer or investor	Mid – Low Income Group
	Government Saving Bank (GSB)		High – Low Income Group
	National Housing Authority (NHA)		Mid – Upper Low Income Group
	Community Organizations Development Institute (CODI)		Lower Low Income Group
	Ministry of Finance (MOF)	Tax incentive	Mid – Low Income Group
	The Board of Investment (BOI)	Investment incentive	Mid – Low Income Group
Improvement of Living Environment	National Economic and Social Development Board (NESDB)	Policy	National development
	Ministry of Interior (MOI)	Regulation	Urban Plan, Building Code
	Local Governments	Permission	Land development, Building construction
	National Housing Authority (NHA)	Community development	Mid – Upper Low Income Group
	Community Organizations Development Institute (CODI)		Lower Low Income Group

Source: JICA (2013, p.24)

4.5 Government Institutions and Organisations in Thailand

In the previous sections, the characteristic of Bangkok with regards to its demographics, economy, urban form, and housing was delineated. It is evident that changes to any of these characteristics are a function of the urban governance system thus it imperative to provide a nuanced understanding of the decision-making processes and wider political frameworks that govern the city. In this section, the aim

is to critically explore the urban governance of Thailand, particularly Bangkok, with the view to better understand the decisions that shape the urban sphere. It is however first important to identify the basic administrative divisions that exist in Thailand which relate to the housing sector. This section also identifies the structure of local governments in Thailand, in the context of their relationship with the central government.

4.5.1 The Administrative Structure of the Thai Government

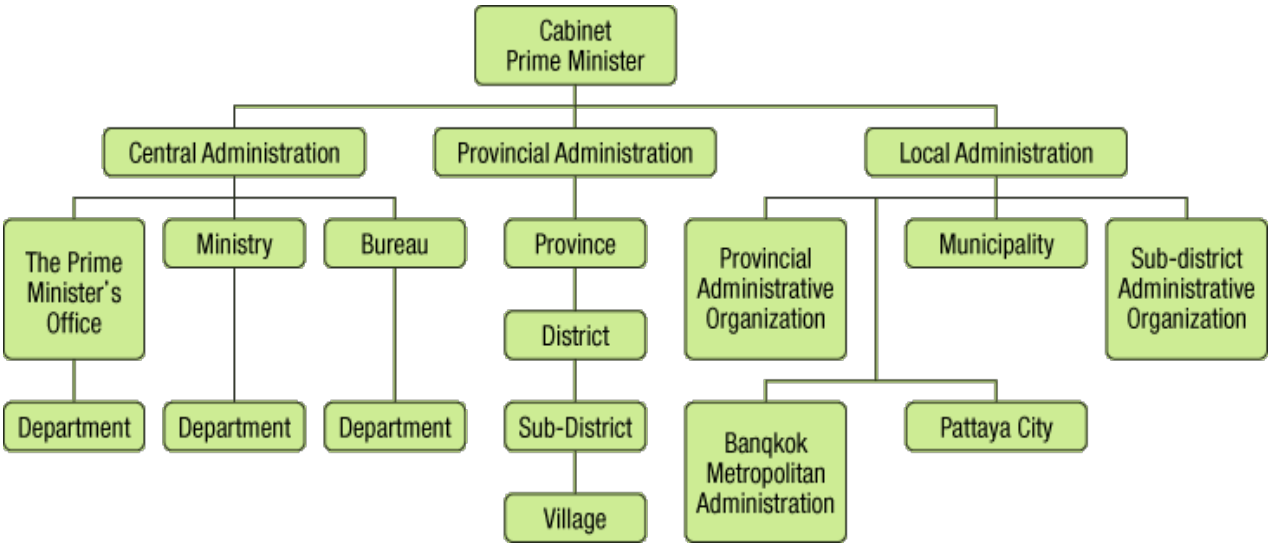
There are three basic levels of public administration in Thailand: central, provincial, and local administration. The central administration consists of ministries and the provincial administration forms part of the deconcentration efforts of the government. It consists of provinces, districts, minor districts, sub districts and villages. The local administration is based upon the concept of decentralisation, which is rooted in the aim of enabling local citizens to participate in local affairs under relevant laws and regulations. There are 2 types of local administrative organisations: the general type (composed of the Provincial Administration Organisation, Municipalities, and the Subdistrict Administration Organisation); and the special administrative organisation which is established in some significant localities. This type of local government consists of the Bangkok Metropolitan Administration (BMA) and the Pattaya City (see Figure 17) .

The unique characteristics of both these authorities have been recognised. Bangkok is Thailand's dominant city. The city exercises significant influence over Thai politics, economy, education, media and culture. Pattaya City is distinctive because of its economic dependence on the tourist industry. Consequently, specific laws have

granted both cities a higher level of independence than other municipal authorities. The World Bank (2012) reported that these two cities are administered by a legislative council, which is elected using a system of proportional representation, and a Chief Executive or Governor chosen by the people through direct elections. Both the council and governor serve for four years. The Bangkok Metropolitan Administration (BMA) will be discussed at greater length in the following section.

Thailand comprises 76 provinces and each province except BMA is headed by a governor who is an official of the Department of Local Administration in the Ministry of Interior. The administration of the governor is considered an extension of the authority from Bangkok (DPT, 2013).

Figure 16 Thai Bureaucratic System

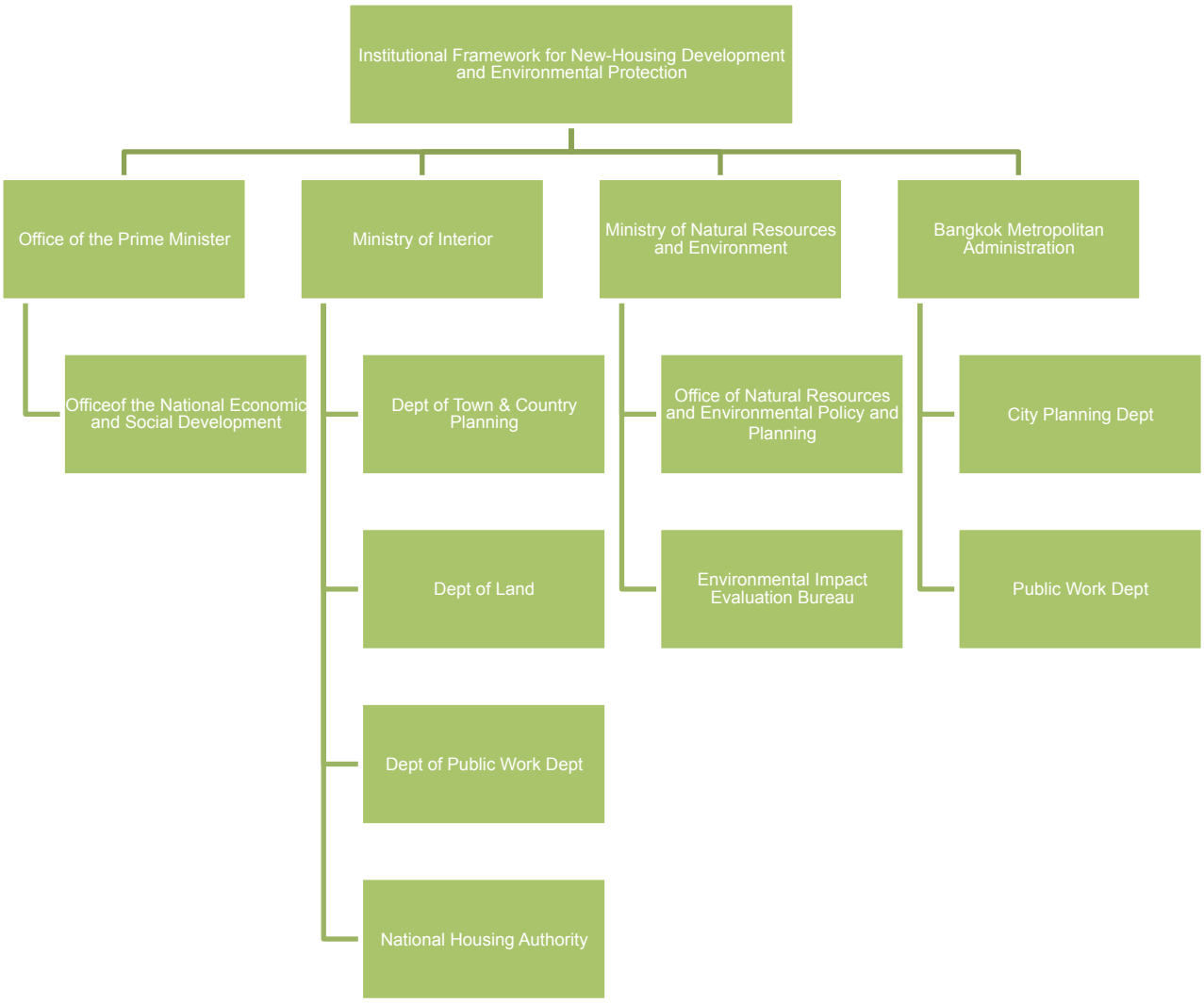


Source: DPT (2013)

The National Economic and Social Development Plan (NESDP), which forms part of the purview of the Office of National Economic and Social Development Board (NESDB), is conceptualised as the most authoritative document with regard to all

matters concerning national policy. Spatial development policies, including region-specific programs, have traditionally been included in this document although in recent years the policy statements on spatial development have grown weaker. Concurrently, the Department of Public Works and Town & Country Planning (DPT) of the Ministry of Interior (MOI) has become much more involved in spatial development and planning at the national, regional, sub-regional, provincial, town, and area levels (Sakkayarojkul, 2013).

Figure 17 Government Institutions responsible for Housing Development and EIA



Source: Kaosa-ard & Pednekar (1996)

Beside housing authorities, the planning mechanism for land use, along with EIA processes, is reliant upon a number of bureaucratic divisions. The primary public sector organisations related to housing policy and strategy include the (NESDB), Ministry of Interior (MOI), Ministry of Social Development and Human Security (MSDHS), Ministry and Finance (MOF), Ministry of Natural Resources and Environment (MONRE), and local governments (see Figure 17).

For example, housing and planning are currently under the government's MOI, BMA, and MONRE which are responsible for overseeing EIA processes. Housing, planning, and EIA procedures have never before been combined; either on a local or national scale. Therefore, the following section of this study outlines the individual responsibilities of the key officials in the EIA, planning, and housing process sector.

4.5.2 The Thai Bureaucracy and Planning System

During the EIA process, ONEP works conjointly with other ministries, particularly the Ministry of Interior which is the putative permitting agency; and housing developers, which are the project proponents. On the national and local scales, land-use planning is shaped by governance at a number of levels (DOPA, 2018a). For instance, local governments are tasked with implementing development strategies and policies, whilst the national government is tasked with creating them. Therefore, some ambiguity and discord exists with regards to the abilities of each level of the government, which has an impact on the planning process in terms of incorporating EIA into the decision-making process. In Bangkok, for example, EIA rules may overlap with land-use planning and building control regulations which leads to duplicative regulation, as well as the emergence of conflict between MONRE and

BMA or other local governments. Such issues often emerge in cases where MONRE manages the EIA process while the BMA issues the development permits. Next section delineates the administration system in Thailand which is generally divided into three distinct categories, namely, central, provincial and local (DPT, 2013).

Central Administration

The central government consists of ministries, and departments. Each of the ministries are governed by a minister and each department under such ministries is led by a director general. A central government agency known as the Office of the Prime Minister is led by the prime minister and bears ministerial status (DPT, 2013).

The ministers, his deputies, and secretaries, symbolise the political power which determines and controls the policies of that ministry. Beneath this political structure lies a vast permanent bureaucracy that implements the day-to-day duties of the ministry or otherwise, the policies of the minister. At the centre of this bureaucratic set-up of the ministry is the Permanent Secretary which is the highest ranked bureaucrat. Ministry headquarters are all located in Bangkok, where policies are formulated and directives and orders are designated to the provincial and local levels (DPT, 2013).

National Economic and Social Development Board (NESDB)

The National Economic and Social Development Plan (NESDP) is devised by the Thai government to oversee the national economic and social development plans, as well as to formulation of housing and environmental policy strategy over a five-year period. Furthermore, the Office of the National Economic and Social Development

Board (NESDB) was founded in 1959 and took control over the generation of national development plans (NESDB, 2012). Each governmental body is responsible for devising their own comprehensive infrastructure development strategies but they are obliged to operate in compliance with the directives outlined in the NESDP. The primary framework directive is intended to oversee all secondary planning activity. NESDP is formulated by the NESDB, approved by the cabinet, and promulgated by government decree (NESDB, 2012). Rattanatanya (1997) explains that while Thailand's planning and design policies are created by government figures, the central government is not responsible for applying these policies and plans within the various local regions. Furthermore, instead of focusing on the environment and the issue of natural resources, the 1st, 2nd, 3rd and 4th National Plan focuses primarily on stimulating economic goals. The 11th NESDP (2012-2016) promotes six key strategies, one of which encompasses social and environmental development, within which "housing" is conceptualised as a salient component. Feedback from the NESDB suggests that local, regional, and national housing policies must be aligned with urban development planning. Urban planning must also include considerations for transport, industry, and the environment (NESDB, 2012) (see the Appendix 3 for a chronology of 1st -12th NESDP). Rattanatanya (1997) and TDRI (1996) suggest that this has led to a number of increasing and clear local environmental issues which need to be addressed (discussed in chapter 5 and chapter 8).

Ministry of Interior (MOI)

The Ministry of Interior (MOI) is not directly involved in the formulation of housing policy or the provision of housing supplies. A myriad of departments are however responsible for issues related to housing. These include organisations with the

mandate to manage land and urban development planning, building codes, and electricity and water supply planning and provision. Importantly, departments under the MOI are responsible for registering lands, buildings, people, and households. Due to the wide range of the responsibilities of the various departments within the MOI (see Table 12), it is imperative that any future housing strategy development and/or implementation is a coordinated effort (DPT, 2013; JICA, 2013).

Table 12 Departments/Agencies Related to Housing in the Ministry of Interior

Departments/Agencies	Matters related to Housing
Department of Public Works and Town and Country Planning	Policy and Standard on Urban Plan, Building Code
Department of Lands	Assessment of Land Development, Registration of Land
Department of Community Development	Policy and Standard on Community Development
Metropolitan Electricity Authority	Planning and Supplying Electricity
Provincial Electricity Authority	Planning and Supplying Electricity
Metropolitan Waterworks Authority	Planning and Supplying Drinking Water
Provincial Waterworks Authority	Planning and Supplying Drinking Water
Bangkok Metropolitan Authority	Land Use Planning, Zoning, Building Codes / Inspection for Bangkok

Source: JICA (2013, p.27)

The MOI is responsible for managing the Department of Public Works and Town & Country Planning (DPT), which is in turn, responsible for determining land use and planning. The DPT offers collaboration between local and relevant government divisions and ministerial departments, so that land use plans can be applied. Because local government officials are able to sign-off housing construction proposals, they play a key part in the application and regulation of land use planning. This is the same across all national regions. Furthermore, local government agents look to the 1979

Building Control Act and the 1992 Amended Building Control Act to determine the approval of land use management and planning (DPT, 2014).

Ministry of Finance (MOF)

The Ministry of Finance has the mandate to develop and manage national fiscal policy, collect and manage taxation, oversee the national treasury and state-owned enterprises amongst other functions. It also oversees eight Special Financial Institutions (SFI), which govern the implementation of fiscal policies. The institutions include organisations such as the Government Housing Bank (GHB) and Government Savings Bank (GSB). Prior to 2011, the MOF had no official role in formulating housing policy or providing housing. In July 2011, the MOF drafted and implemented a "First-Home" Policy until June 2013, which was designed to promote home-ownership and stimulate demand within the housing market. The policy targets low-income taxpayers, who are first time buyers, exclusively. Notably, the MOF does not support similar incentives targeted at middle- and high-income groups.

Ministry of Social Development and Human Security (MSDHS)

The MSDHS does not have a formal role in housing policy or provision. It nevertheless, houses the NHA and CODI which are responsible for supplying housing to low-income households (see Table 13). The function of MSDHS is to allocate the budget for both agencies, although as a caveat, it does not influence policy development (MSDNS, 2014; JICA 2013).

Table 13 Departments/Agencies related to Housing in Ministry of Social Development and Human Security

Departments/Agencies	Matters related to Housing
Department of Social Development and Welfare	Budget related to housing
National Housing Authority (NHA)	Implementation of housing construction
Community Organizations Development Institute (CODI)	Improvement of slum upgrading

Source: JICA (2013, p.28)

Ministry of Natural Resources and Environment (MONRE)

The MONRE is a central government body responsible for planning and supervising EIA procedures, and operates under the National Environment Act (NEQA). The 1992 NEQA is implemented by the Office of Natural Resources and Environmental Policy & Planning (ONEP) which controls EIA procedures alongside a number of expert groups (NEQA, 1992). However, the EIA process is not influenced by MOI-based local planning authorities, which are only informed of EIA proposal success. Therefore, EIA planning varies somewhat from the standard Thai design procedure (discussed in chapter 5).

Provincial Administration

The provincial government entails 76 provinces, each of which are led by a governor. Thailand's provinces are divided into districts; in 2010, there were 878 districts throughout the country. In each province, there is one capital district and each district is led by a district chief (DPT, 2013). At the provincial level, DPT, is expected to coordinate economic development planning for their region. For example, they are responsible for the formulation of structure planning and land-use planning. However,

the Bangkok Metropolitan Administration (BMA) is the only organisation responsible for devising its own land-use directives though the plan must be sanctioned by the DTP before it is implemented (DTP, 1994). Thus, the DTCP controls the formulation of land-use directives but has no involvement in the actual realisation of their carefully-devised plans. These plans are delivered to local government officials who are obliged to initiate the implementation process. This stage is the most problematic as the local government encounters issues with local infrastructure planning, planning laws and zoning issues (CEC, 1995).

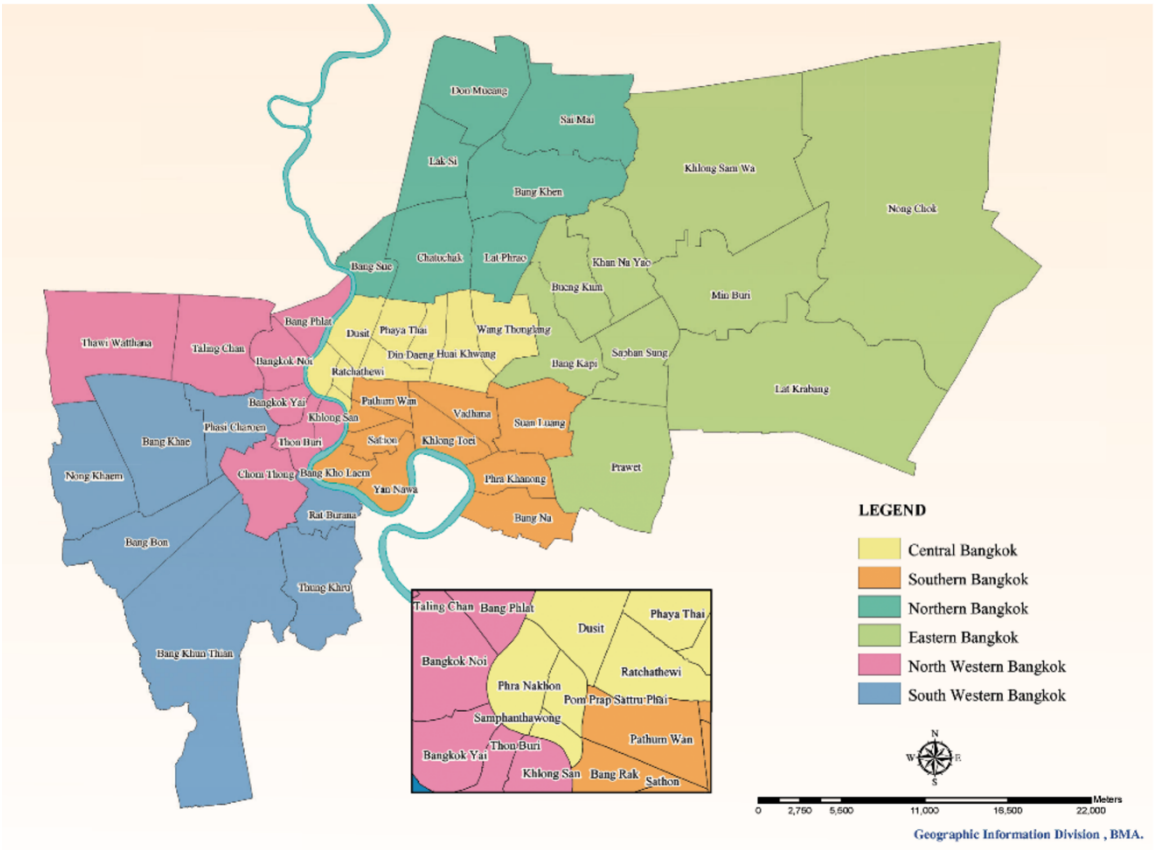
Local Administration

Local state officials are expected to effectively implement the plans as devised by the DPT at a provincial level. This stage of planning involves the securing of investment and the formulation of land-use directives (Chuwong, 1997). These plans are sanctioned by the central state coordinating office, namely the NESDB, who make alterations or decisions relating to the implementation plan. In 1999, the Thai parliament passed the "Act for Promotion of Decentralisation" which stipulates that local governments must elected their own leadership, including an assembly and mayor (JICA, 2013, p.29). The Act further stipulates that local governments must be partially responsible for supplying housing to low-income families. Hence theoretically, local governments should be conceptualised as stakeholders in housing sector policy development, however as nearly all local governments with the exception of the BMA lack both the funding and the technical capacity to implement affordable housing, no new housing supply has been added by local governments yet (JICA, 2013).

Bangkok Metropolitan Administration (BMA)

The Bangkok Metropolitan Administration (BMA) is a special local government organisation that comprises 50 districts and 169 sub districts (see Figure 18). Bangkok has become the centre of several activities which have a supply chain and linkages with BMR as per the Bangkok Metropolitan Regional Plan. As a caveat, the BMR is not a political entity but rather, a geographic designation with some governance power **(**Nantasenamat, 2013).

Figure 18 Map of Bangkok



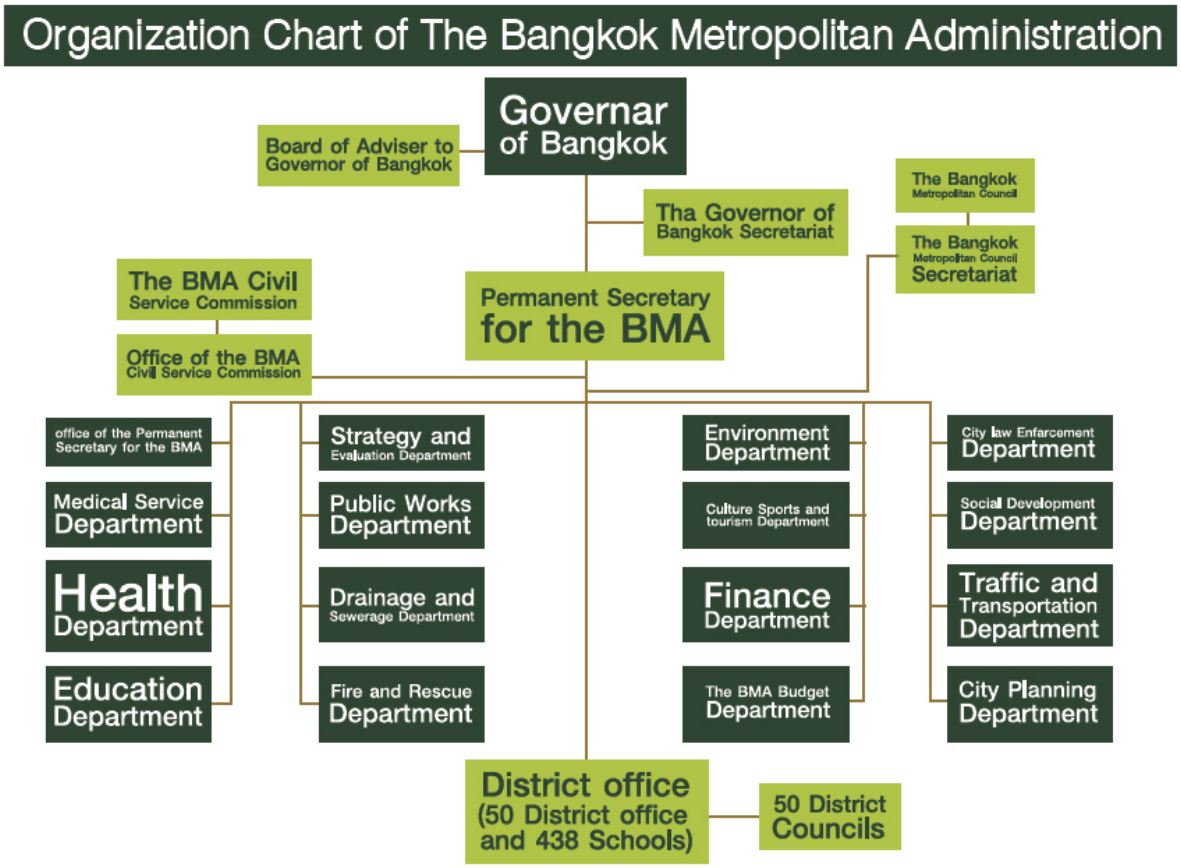
Source: BMA (2016)

The BMA was granted special governing rights by the Bangkok Administration Authority Act of 1985. This bestowed a greater level of control to the municipal organisation as it was permitted to operate outside of regulatory administrative

hierarchies. The BMA council, along with the Bangkok city governor, are elected officials and are obliged to collect city taxes and also receive fiscal support from the state (BMA, 2016). Local state officials are responsible for the formulation of all plans and must ensure that they comply with the directives outlined in the NESDP, National Plan, and the Comprehensive Land-use Plan (BMA, 2016).

The existing institutional framework of BMA entails 3 offices, 16 departments and 50 district offices (see Figure 20). The office acts as the Secretary to the Governor, the Bangkok Metropolitan Council and the Civil Service Commission of the BMA.

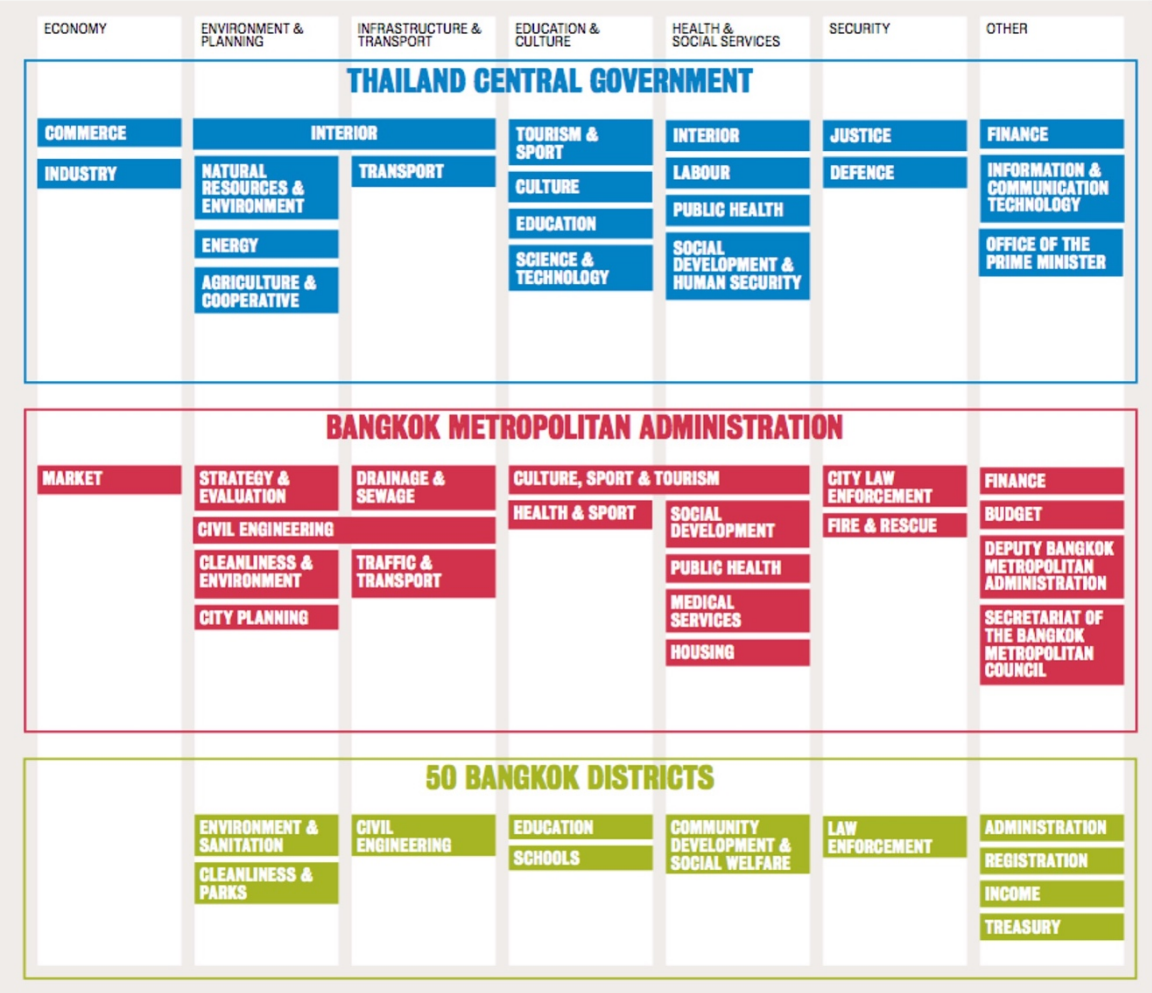
Figure 19 Organization of the BMA



Source: BMA (2016)

Figure 20 depicts the fact that at least 19 central government organisations are directly responsible for managing various aspects of the urban space in Bangkok (BMA, 2016). On the other hand, the 16 departments have oversight of the duties assigned to them by law and district offices typically provide services at the district level (Heeckt et al., 2017).

Figure 20 Bangkok Governance Structure



Source: LSE Cities (2016)

In many ways, the BMA acts independently although several of the city's responsibilities are carried out in conjunction with other agencies and national departments (Figure 20). Due to Bangkok's central position, every significant

development project in and around the BMA has to be approved by the national cabinet. These developments ostensibly have to align with the BMR regional plan (BMA, 2016; Heeckt et al., 2017).

In summary, planning on a national and provincial level progressed without issue; however, policy implementation on a local level became problematic. The national framework plans tend to be comprehensive overviews of economic and social infrastructure development on a state level and there are often contradictions and duplications between various government departments (Chuwong, 1997). Ever since the launch of the fifth National Plan, environmental issues have become an important aspect of infrastructure development and when the eighth plan was launched in 1997, social and environmental issues became integral to the formulation of an economic development framework (NESDB, 2012). Apparently, the local government does not interfere in the housing market; rather, free market mechanisms are allowed to naturally function. On the other hand, the central government focuses on implementing housing policy in response to urban growth and housing development in Bangkok.

4.6 Regulatory Frameworks Related to New-Housing Development

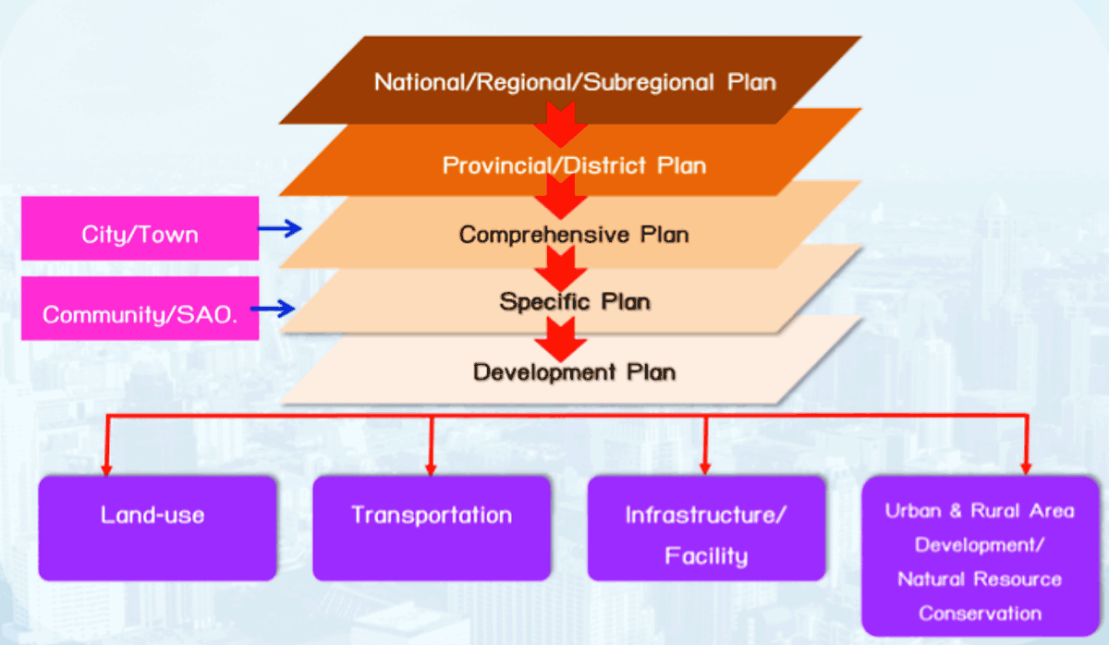
Housing and condominium development is governed by four overarching laws. The first pertains to the Town Planning Act, which is exercised by the BMA for development in Greater Bangkok and nationwide by the Public Works Department. A section of the law concerns environmental considerations such as the directive that the construction process must not affect neighbouring locations. Secondly, the Building Control Act is also exercised by the BMA and the Public Works Department. This

law focuses primarily on environmental management. Thirdly, the Condominium Act is implemented by the Interior Ministry's Lands Department and, lastly, the Environmental Quality Protection and Promotion Act, stipulates the EIA approval process which is implemented by MONRE.

4.6.1 The Town Planning Acts B.E. 2518 (A.D. 1975)

In 2002, the cabinet mandated the DPT to accelerate the development of the urban plan to encapsulate all areas throughout the country. In response to the abovementioned resolution, DPT established a national – regional plan with the aim of setting up development policies, strategies, and measures as frameworks for spatial development and planning at all levels (see Figure 22).

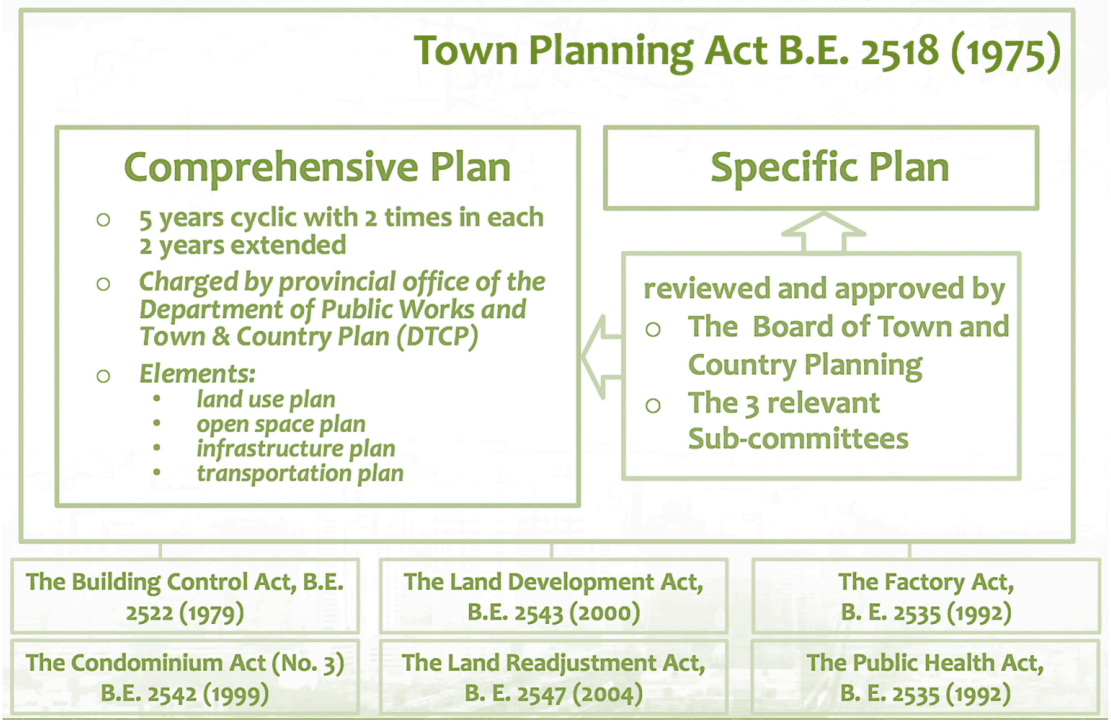
Figure 21 National Planning Structure



Source: DPT (2013)

Thailand's initial Town Planning Act was introduced in 1936, using Britain's Town and Country Planning Act of 1932 as a template. As a result of the transformation of Thailand from a rural and agrarian society to an urban and industrial society, the 1936 Act was amended in 1952 and again in 1975 (DTCP, 1994). The 1975 Act gave rise to the Board of Town Planning (BTP) and the Comprehensive Land-use Plan. The BTP was given nationwide authority over the Comprehensive Land-use Plan, including acts of enforcement, demolition and modification, as well as dealing with appeals raised based on the land-use plans (see Figure 22).

Figure 22 The Outline of Existing City Planning Laws and Regulations

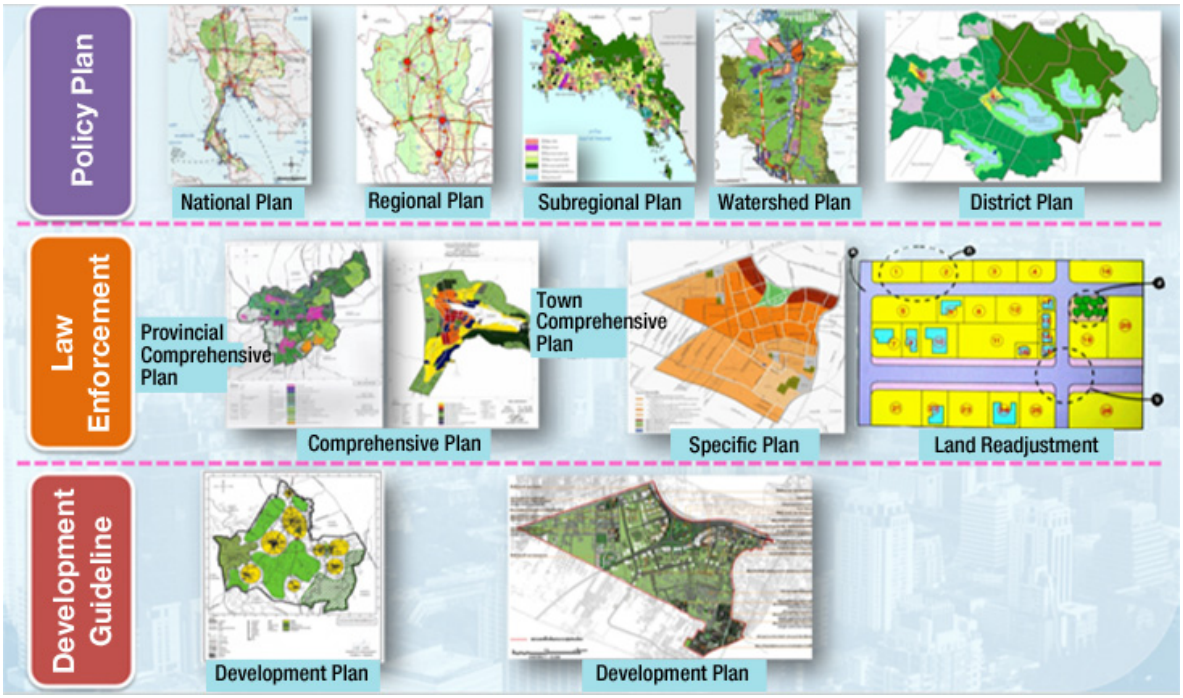


Source: DPT (2016)

The Act was amended in 1992. According to the 1992 document, the MOI has overall responsibility for city planning, via the twenty representatives on the Board of Town Planning. The board is the most authoritative body in the country in the area of urban planning (DTP, 1994). The executive wing of the board, the DPT, is responsible for national planning, overseeing planning activities and acting as a middle-man for the

Board and local government bodies. The Act designates two levels of city land-use for planning purposes: The Comprehensive Master Plan and the Specific Plan, both of which are implemented on the authority of the minister and the town planning acts. The Comprehensive Plan is a big-picture framework that provides broad guidelines for the design and development of specific areas. The DTP is expected to create the Comprehensive Plan and subsequently hand it over to local officials for implementation (Tummanon, 2013) (see Figure 23).

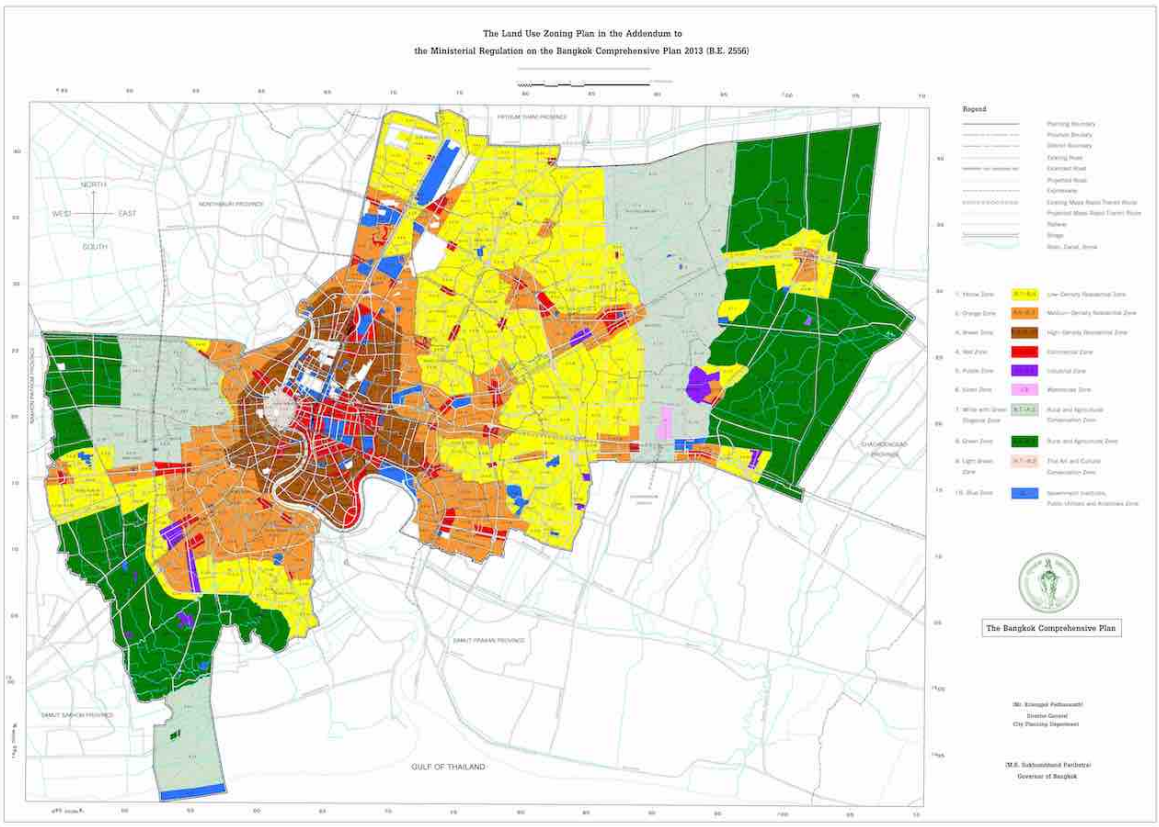
Figure 23 Spatial Plan Hierarchy and Characteristic



Source: DPT (2013)

The Bangkok Comprehensive Plan has the same authority as a statute over five years, provided that it has been approved by the cabinet and has been disseminated by the minister as an official regulation (see Figure 24). There is an allowance to extend them for two years or less in order to facilitate the development of a new plan. This can expand to a five-year extension if the region's situation has remained largely unchanged and if the public have no complaint (BMA, 2016).

Figure 24 The Bangkok Comprehensive Plan 2013 (B.E.2556): Land Use Zoning Plan



Source: BMA (2016)

A Specific Plan applies to zoning and construction in a specific location. Specific plans include a huge amount of detail regarding land, construction, roads, utilities and other local features. In fact, the plan is so thorough that it could be used as a map or zoning ordinance for the relevant region (DTP, 1994).

The Town Planning Act of 1992 specifies that when a Comprehensive Plan has been put in place, an aligned Specific Plan can be created by appropriate local authorities. Alternatively, the local authorities are entitled to have their plan drawn up by the DTP. If no Comprehensive Plan is in effect, the minster can demand the DTP or the local agencies develop a Specific Plan. During the process of drawing up a plan, local

authorities must attain the endorsement of the Town Planning Board before the Specific Plan can take effect (DTP, 1994).

However, although acting against the plans is technically illegal, it remains the case that they are inadequately enforced. Nothing compels companies or individuals to gain planning permission when they intend to develop land (CEC, 1995). As a result, determining whether the plans have been violated requires close examination of land use along with the Ministerial Regulations on land designation and density limits. However, as a result of their statutory function and the punishment for violations, the land use maps are inevitably not sufficiently detailed and the density limits are too vague (CEC, 1995).

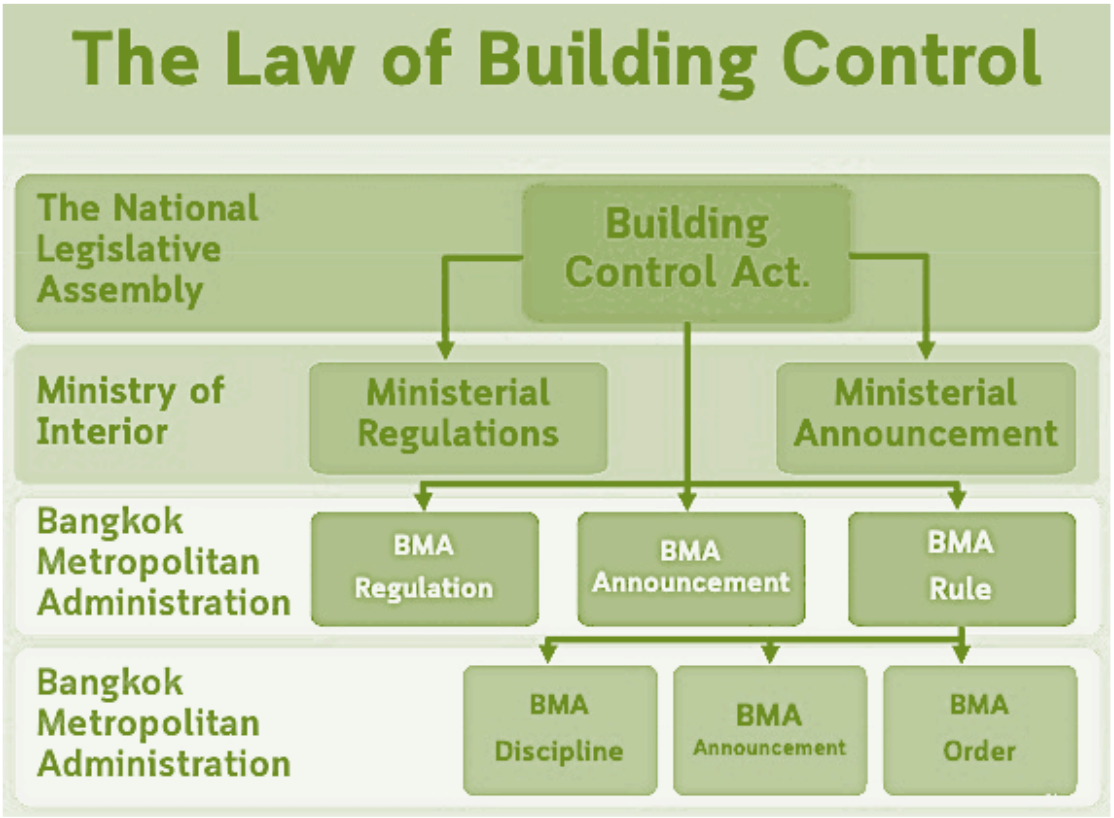
4.6.2 The Building Control Acts B.E. 2522 (A.D. 1979)

The Building Control Acts allow the MOI to share the Ministerial Regulations for potentially environmentally-damaging construction and development. Furthermore, municipality bylaws can be applied by local government officials in accordance with the Ministerial Regulations.

The Building Control Act B.E. 2522 (1979) and its accompanying ministerial regulations are the specific sources of law governing the application process for building construction permits and other licenses concerning safety and fire protection among various other aspects. Therefore, it is imperative that housing developers and contractors carefully consider the Building Control Act prior to a construction project. This Act has been modified from previous versions in 1992, 2000, 2007, and 2015 (DPT, 2016).

Local and central governments who determine planning policy can employ the Building Control Acts as guides, particularly with regard to approval of construction undertakings. For instance, if no Comprehensive or Specific Plan is in place, the Building Control Act can be used as a source of direction. Additionally, this Act prompts the provision of ministerial regulations and municipal ordinances, both of which bolster the planning permission system (Figure 25). When it comes to urban planning, such regulations and ordinances can be implemented as a means of containing development in a given region by facilitating the proscription of construction, renovation or changes to buildings' purposes (DTCP, 1994).

Figure 25 The Law of Building Control Act



Source: BMA (2016)

At first, the Act was not primarily concerned with land usage. Rather, it focused on the characteristics of individual buildings, including area, height, relation to adjoining

streets, building lines, open space and site cover. Additionally, rather than applying to zoning, a ministerial regulation than falls within the remit of the Act, it establishes the requirements relating to off-street parking in various buildings. The 1992 Act changed the requirements applied to particular buildings according to the zoning laid out in the Land-use Comprehensive Plans. For example, it restricted the number of allowable floors in Low Residential Zones and required buildings to be a certain distance from the main road in Commercial Zones (DTCP, 1994).

The main purpose of the Act is to control the issuance of building-use permits, but this is generally determined by the building's appropriateness for its designated function and not based on the zoning of land. The Act applies more to the usage of buildings relative to the designated purpose of the land, as opposed to the appropriation of particular sites (DTCP, 1994). This Act also codified the regulations related to structural resilience, fire resilience, health and safety, environmental suitability, adherence to town planning, architecture and congestion considerations. Ultimately, the stipulations of the Act overlaps with EIA regulations, which has an adverse effect on the implementation of EIA in Thailand (CEC, 1995).

4.6.3 The Condominium Act B.E. 2522 (A.D. 1979)

In 1979, Thailand's first law concerning condominiums, the Thailand Condominium Act 1979, was passed after which it was enacted in 1982. The Act regulates the management of collective housing such as condominiums and it has been modified from previous versions in 1991, 1999, and 2008. This Act is applicable to housing units for sale, but not in the rental market. The Act aimed to control the development of condominiums by recognising condominium management and property deeds. The

objective of the Condominium Act 1991 was to enable foreigners to own the property deeds of condominiums and thus encourage foreign investment in the condominium market. This act formed part of an effort to boost Thailand's economy and between 1986 and 1990, the real estate market in the BMR flourished.

4.6.4 The Enhancement and Conservation of National Environmental Quality Act (NEQA) B.E. 2535 (A.D. 1992) and Environmental Impact Assessment (EIA)

As a result of increasing environmental problems, EIA has been implemented in Thailand to facilitate environmental planning and the management of economic development projects via a screening approach under the Enhancement and Conservation of the National Environment Quality Act (1975). This Act has been modified from previous versions in 1975, 1978, and, 1979. Currently, the 4th version is still in use. The new NEQA act was delineated and came into force in 1992 and its overarching purpose is to set and follow the environmental policy, plan, and standards to protect the environment by providing basic provisions for environmental protection in aspects of natural resources and pollution control. It further aims to be a comprehensive environmental law, incorporating varied aspects of environmental management in Thailand (AECEN, 2015). EIA specifies that any project or activity that may be concomitant with negative externalities on the environment must have an assessment of their environmental impacts before the project is implemented (ONEP, 2016). EIA is explained in detail in chapter 5.

In summary, the abundance of legislation related to land designation and planning has caused many practical difficulties because different pieces of legislation give control

to different bodies, leading to internal confusion and conflict. Efforts to streamline planning efforts have consistently failed, both regarding the horizontal interaction between different offices and the vertical interaction between the national elite and local administrators (discussed in chapter 8). As noted by a planning authority senior bureaucrat that was interviewed:

> *Although urban land-use policies have been outlined as were shown on coloured maps or what they call Land Use Plans, they have never been implemented effectively.*

Thailand has lacked rules on planning permission. Buildings, therefore, are merely constructed in areas with high demanded. This means that the urban spatial characteristics of the BMR is somewhat haphazard, failing to have any clear scheme or coherence (Chuwong, 1997). Housing is constructed haphazardly and as a result, the provision of essential public utilities, such as water and road access has become problematic.

In the less recently developed areas, a commonly used method to access water is to redirect streams and concomitantly, burst sewerage pipes have caused sinkholes in some instances. As housing developers rarely consider the most suitable areas for residential use, congestion on roads has been exacerbated. Furthermore, the lack of consideration given to new developments often means that there can be serious environmental damage, even worsening conditions in nearby buildings (PADCO, 1990; Tummanon, 2013).

A condominium association representative provides more detail about the efficacy of the Act:

> *The Building Control Act, Town Planning Act, and Condominium Act have an impact on the housing projects but it's not necessarily effective because these laws and regulations are consistent and concrete. Private developers approve of anything as long as it is concrete and clear. The developers will always adapt to it although there may be some complaints in the beginning of the enforcement. Eventually everyone adapts and fulfils the requirements. The legislations thus affect the decision on launching a new housing project. For instance, if the developer has a piece of land in a green zone, he cannot build a townhouse on it. It comes as explicit criteria.*

4.7 Conclusion

Among the major points discussed in this chapter was an outline of the character of the Thai housing market, the key stakeholders in the housing sector, as well as the characteristics of private and public housing. The situation and circumstances whereby housing development has taken place in Bangkok was critically discussed and this entailed an exploration of the key issues within Thailand's housing development sector. The chapter further focused on the role of the private sector in the country's housing development, in addition to the role played by government institutions with a focus on their duties as well as resources and legal structures for taking action.

The housing development in Thailand must be undertaken in accordance with the provisions of Building Control Act, Condominium Act, and Town Planning Act. The Building Control Act enables the government to regulate almost all types of development through the requirement to make applications and to sanction offenders,

whilst the Town Planning Act is concerned with the purposes for which land can be used in various areas. Furthermore, both pieces of legislation enable Ministers to issue regulations concerning standards of construction and to specify the amount and purposes of development allowed in specific areas. There may also be regulations in force in certain areas concerning the height and size of buildings which may impact on the output of building projects. Finally, environmental laws, particularly the need to undertake an EIA, may also place limits on development (discussed in chapter 6). In the following chapter, the practice of EIA in Thailand is critically discussed.

CHAPTER 5 ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PRACTICE

5.1 Introduction

The chapter starts with an overview of the nature of EIA policy and implementation after which it outlines the nature of EIA in Thailand. It subsequently evaluates the factors that impact the policy formulation and implementation of EIA. The study especially focuses on EIA stipulations in Thailand, questioning how these emerged and how they have been adjusted over time. The chapter further questions the driving forces behind the government decision to introduce EIA procedures, or more accurately, to tighten regulations in the last decade. The overarching objective, is to uncover the ways in which the state has dealt with competing interests in the housing development process and the ways in which it has incorporated the views of such actors, into final outcomes. Has the state acted as a neutral arbiter or does it favour particular outcomes? If the latter, why?

5.2 EIA Practice Worldwide

When the United States introduced NEPA in 1969, preliminary legal status had been given to EIA, which in the following years has spread across the world. NEPA's EIA approach has been replicated by many other countries. In the USA it was stipulated that when environmental impacts were predicted from a state-backed or financed scheme, an EIA was necessary (IAIA, 1999).

Since the early 1970s and having been inspired by the US approach, EIA policies have been introduced in various states such as Australia, France, Thailand, and

Canada. Particularly in economically advanced states by the mid-1980s, it had become common practice and a part of global standards to implement EIA (Fischer, 2016; Garb et al., 2007; Glasson et al., 1999; Jay et al., 2007). When Agenda 21 was adopted at the 1992 UN Earth Summit in Rio de Janeiro, calling on states to factor in environmental considerations in their policy choices, EIA received renewed focus (Garb et al., 2007; Morgan, 2012). The Convention on Bio-Diversity (CBD) also incorporated EIA mechanisms. Investment schemes run by the UN and the World Bank often now include stipulations regarding EIA directives, reflecting the approach of other global aid bodies and the mechanisms of various international laws. Every continent and over 100 states have some presence of EIA mechanisms (Garb et al., 2007), meaning its adoption has spread to economically developing states as well.

Nevertheless, the implementation and success of EIA policies has been mixed across various states; legislation and processes are state-specific. Barrow (1997) has observed that certain states such as Denmark, the UK and Sweden have not introduced stand-alone EIA policies (Hickie & Wade, 1998; Lee & Dancey, 1993; European Commission, 1996). Rather, they have incorporated EIA into development scheme processes. In the USA, the EIA approach is to produce distinct policies and this approach has been adopted by Thailand. Economically advancing countries tend to have context-specific conditions that influence the implementation of EIA; scholars such as Glasson (2005) have also pointed out to the variable application of EIA to schemes as well as the divergent levels of citizen engagement and number of EIA's undertaken across developed states. In France for example, around 7000 EIAs are done annually, while in Austria it is only 20. Mindfulness regarding the variability in

background factors and EIA outcomes is crucial, as opposed to assuming a broad perspective of the applicability of a standard EIA approach across all states.

A crucial aspect of EIA mechanisms is the evaluation of other possible courses of action other than the proposed scheme (Bulleid, 1997; Partidario, 2014). Commonly, other possible technical responses or potentially different schemes are unlikely to be posed in the majority of submitted EIA reports. Part of the answer may be in making EIA expert advisers central to EIA assessment processes and mechanisms, as the expert knowledge of development bodies and advisers has been argued to improve EIA assessments (Skeham, 1993). The normalisation of EIA mechanisms and procedures may also engender the incorporation of environmental legislation advice into schemes (Kakonge & Imeybore, 1993).

As discussed in chapter 2, effective EIA mechanisms may also rest on the utilisation of professional and trained cross-disciplinary employees for effective cooperation and support (Morgan, 2012). It is argued that one person is unlikely to have the capacity to tackle various problems and context-specific concerns (Lee-Wrights, 1997). Estimative simulations, information evaluation, fieldwork experience, lab research and a whole manner of skills in relation to the assessment of data are likely to assist the EIA process, for both advisers and bodies (Alo, 1999). There has been significant debate concerning what such scoping and assessment should entail, despite the general consensus on its importance to EIA (Fischer, 2016; Parario, 2014; Sanchez, 2013; Wood, 2003).

5.3 EIA Practice in Developing Countries

Economically advancing and advanced states have mostly incorporated EIA mechanisms and systems to some degree, following the USA's legislative action in 1969. In the 1990s, it was observed that over 40 states had implemented EIA mechanisms (Robinson, 1992). However, there has been mixed success in incorporating EIA in industrialising states, in relation to context-specific abilities and processes.

The implementation of EIA systems in economically advancing states has been championed by countries in Southeast Asia, with Horberry (1985), Kennedy (1988), and Moreira (1988) noting that particularly in Africa, as well as Latin America, EIA has not been put in to practice so significantly. In terms of theories, methods and processes of EIA, considerable development was made in the 1970s and in to the 1980s.

Industrialising states have had variable experiences with implementing EIA mechanisms, reflecting the pattern across industrialised states in relation to EIA. Lohani et al. (1997) and Donnelly et al. (1998) have pointed to the mixed success of implementing EIA mechanisms in Southeast Asia and Latin America. Various industrialising states' variable experiences in implementing EIA and introducing relevant legislation, have been explained by George (2000). George (2000) conceptualises these variable experiences as a function of the degree of economic progress in the respective countries, cultural and societal factors, assets, as well as bureaucratic and political mechanisms.

The enhancement of EIA mechanisms may also occur as a result of implementing various other processes, as identified by academics focused on international application of EIA (Wood & Jones, 1997). A scheme's environmental protection and sustainability aspects would thus be enhanced, and it would further contribute to an appraisal of the effects estimated in the EIA. It has also been recommended that EIA implementation bodies should also be given sufficient remit for policing and prosecution. This would include the ability to conduct assessments of EIA implementation, as well as complete ability to impose relevant rules and codes of practice by the appropriate agencies (Abracosa & Ortolano, 1987; Kakonge & Imeybore, 1993).

Industrialised states' experience of implementing EIA has been significantly divergent from that of industrialising states. That preliminary EIA implementation within industrialising countries was not based on calls within the state for improved environmental regulation, but rather from International Financial Institutions (IFIs) and aid organisations' pressure or stipulation as part of agreements. Nevertheless, with regards to the implementation of EIA mechanisms in certain Southeast Asian states, greater realisation within states of the need for sustainable development may have encouraged EIA adoption (Lohani et al., 1997).

As opposed to industrialised states, low-income countries have only began the process more recently and thus may not fully incorporate EIA mechanisms (Lee & George, 2000). Donnelly et al. (1998) have noted how the majority of advancing nations' policy and statutory foundations of EIA only came into creation during the 1990s, with only a few states such as the Philippines in 1977 and Colombia in 1974 implementing EIA legislation prior to its introduction in industrialised states.

5.4 EIA Practice in Thailand

> *"Environmental policy is designed with the goal of enabling both today's and future's society to enjoy a good quality of life through the ethical management and utilisation of natural resources." (BOI, 2014)*

The point in the excerpt above is supported by the Thai government, which emphasises the importance of such resources in achieving economic development and growth, although it is imperative for the government to take action if this goal is to be realised. One of the main reasons that effective resource management depends upon government intervention is the risk of overconsumption of natural resources due to market failures (BOI, 2014). As the BOI (2014, p.4) explains, such failures stem from the external costs and benefits where others are impacted by someone else's resource consumption.

Over the last 40 years, Thailand's economy has undergone phenomenal growth. As a result, it has experienced a multitude of both successes and complications. To face these issues, policy reforms and development strategies have been crafted, particularly within sectors heavily involved in resource management and environmental issues. The growth of the economy, and with it, the enlargement of industry, has raised many environmental concerns. As such, the Thai government has responded to such concerns by enforcing several regulatory acts, one of which being the crucial EIA, an obligatory undertaking for large scale development projects to better inform the environmental aspects of planning and management for economic development projects such as new-housing projects. Since 1981, all such undertakings have been subject to an economic development screening approach.

The EIA is a process that has been applied for the purpose environmental supervision in Thailand. This study particularly focuses on new-housing development projects in Bangkok, Thailand. As environmental problems are ever rising, it is vital that processes such as the EIA are implemented in order to highlight any potential environmental impacts of these housing projects. Identifying any potential problems in advance can lead to appropriate planning to ensure that any environmental issues can be resolved. Using natural resources efficiently can be economically beneficial for Thailand. In the following section, an emphasis is placed on EIA policy formulation, alteration, and implementation. The ways in which EIA has developed, and how this is linked to planning, can be understood through an exploration of the changes made to Thai legislation. The strengths and shortcomings of EIA implementation in Thailand will also be discussed.

5.4.1 Substantive Impact on the Environment of Thai Development

From the export-focused policy implemented by the Thai government in the 1980's to the present day, Thailand's economy has seen rapid growth. In order for this industrial revolution to take place in such a rapid way, developments in industry, natural resources were intensely pursued. There has been high demand for the utilisation of natural resources (OEPP, 1998; Nicro & Apikul, 1999).

However, during this time there has been a distinct lack planning, efficient use of resources and environmental protection (Intaraparvich & Clark, 1994; Bureekul, 2000; TEI, 2005). Serious environmental problems, therefore, began to occur all over the country (Thabchumpon, 2002; Violette & Limanon, 2003). There was considerable reduction in natural resources, with a considerable increase in pollution

(Muanpawong, 1999; Bureekul, 2000; Shytov, 2003). As a result, Thailand encounters increasing environmental degradation across the country. This is an issue that is being manifested particularly through the substantial depletion of natural resources and a significant pollution problem affecting atmosphere, water resources, the country's biodiversity, the loss of plant and animal species, waste issues, and climate change (UN ESCAP, 2006).

Air pollution: Critical air pollution has been a consequence of Thailand's industrialisation, especially in Bangkok, with industry and transport being major contributors (World Bank, 2011). In 2015, Air quality in many areas failed to meet environmental standards due to the high percentage of PM10 (Particulate Matter with airborne particles with a diameter of up to 10 μm), PM2.5 (particles with a diameter of up to 2.5 μm) and O_3 (ozone) (PCD, 2015). The World Bank's figures suggest that the number of fatalities in Thailand as a result of poor air quality was approximately 49,000 in 2013, which compares with an equivalent figure of 31,000 in 1990 (Buakamsri, 2016; World Bank, 2016).

Water pollution: According to data released by the PCD (2015), a quarter of Thailand's surface water was below the quality targets set, and 9 percent of the water off the country's coasts was poor with 3 percent categorised as being very poor. The Inner Gulf of Thailand was the poorest measured quality of water, and this was due to effluent entering the natural drainage system. It has been the agricultural sector that has contributed most to this situation. In 2016, according to Rujivanarom (2017), agricultural sector was responsible for creating 39 million cubic metres of effluent per

day; the next-highest figure recorded in this year was the 17.8 million m^3 attributed to the industrial sector, with 9.6 million m^3 coming from residential sector.

Waste and Hazardous Waste: PCD data from 2015 indicate that the amount of hazardous waste produced by the community that year amounted to some 591,127 tonnes, which is 14,811 tonnes (2.6 percent) in excess of the previous year's figure. In terms of industrial waste, 2.8 million tonnes of the 37.4 million tonnes produced in total that year, or 7.5 percent, were hazardous (PCD, 2015). According to Suksamran (2017), the total national figure for solid refuse production was 27 million tonnes, an increase of 0.7 percent on the 2015. Bangkok was responsible for 4.2 million tonnes of solid waste in 2016. In terms of measures to deal with solid waste, nationwide there were 2,490 waste consolidation locations, in 2014, although just 466 landfill sites were of the required standard, and 28 megatons of waste were not treated at all. Techawongtham (2016) highlighted the very serious pollution problem that existed with the country's canals, which had become full of effluent as a result of having liquid waste released into them.

5.4.2 Problem Identification and Agenda Setting

The rapid economic growth led to massive environmental problems, mostly due to the mismanagement of the environment and natural resources (Thabchumpon, 2002; TEI, 2005). Developmental strategies were sanctioned without any strategies being put in place to address social or environmental impacts (Shytov, 2003). This engendered many conflicts about the correct use and allocation of natural resources (Thabchumpon, 2002). It is clear that rapid economic growth is concomitant with environmental pollution and thus, Thailand's economic prosperity and development

should go hand-in-hand with the efficient management of the environment. It is imperative for development to be sustainable and this entails accurate assessments of environmental strategies (Langkarpint, 2000). Economic growth is vital to improve quality of life, however, the impacts on the environment also need to be addressed. Thus the important question is, how can Thailand protect and conserve its environment?

What are the root causes of environmental problems? The basic answer is increasing industrial development, together with an increasing urban population, which has to be housed appropriately. This expansion inevitably encroaches on the environment. Thailand's NIC status has brought many economic benefits, but it has also brought environmental challenges. Management and regulation is obviously the way forward, if a sustainable natural environment is to be maintained whilst industrial development continues (Langkarpint, 2000). However, since the progress of the economy takes centre-stage in all political policies, the sustainable environment agenda frequently takes a 'back-seat'. The government is aware that to foster more economic development, less regulation is required and as a result, the environmental agenda is weak (Langkarpint, 2000).

The institutional development of environmental regulations in NICs has been rapidly expanding when compared with developed countries (Harashima & Morita 1998). This is the case because environmental policies in developed countries have been imitated in NICs. There have been international incentives and support for global agencies, such as the World Bank and the U.N. These agencies have driven the environmental agenda forward to counter the threat of environmental deterioration (Harashima, 2000). Since the late 1980's, Thailand has relied on international

assistance, such as from the World Bank, for further development planning. Environmental policy development has also been encouraged by these international agencies in Thailand. The Thai government, as a result, has driven many environmental programmes that have been financially supported by international agencies (Harashima, 2000). The EIA is then used to monitor and assess the planning and outcomes of these programs.

In Thailand, the government has complete power to control all natural resources, as well as the environment of the nation as a whole (Muanpawong, 1999; Jarusombat, 2002). Thus, all policies and their implementation and enforcement are the responsibility of the government. Unfortunately, the government has not taken its responsibilities for environmental protection and sustainable natural resources seriously (Bureekul, 2000). The public has had to comply with whatever legislation has been set forth by the Thai government.

The Thai government participated in the Stockholm conference in 1972. As a consequence of that conference, it created the National Environment Board, NEB, as well as the Office of the National Environment Board (ONEB). These bodies were created to centrally manage environmental issues (OEPP, 1998). This was the first time that the government created organisations to directly manage the environment, dealing with all issues associated with the protection and sustainability of natural resources (Reutergardh & Yen, 1997). As a consequence of this action, new environmental laws and regulations were set up by the government and the Thai legal system thus became influenced by international convention (Shytov, 2003).

5.4.3 EIA Policy Formulation

These environmental initiatives in Thailand have been implemented for different reasons than the EIA in Western countries. EIAs in Western countries have been formed due to social pressure on respective governments (Boyle, 1998). Environmental degradation caused these problems to be highlighted in social discourses and as a result, environmental issues became one of the priorities for political and institutional agendas. Whereas the environmental policies developed and implemented in the Western countries were 'bottom-up', in Thailand, these policies have been implemented from a 'top-down' approach. That is to say, in Thailand, these initiatives have been developed and implemented by the government of Thailand. This may be so because it is seeking to replicate the strategies in the Western countries, as opposed to having serious environmental concerns (Roque, 1986). International peer-pressure can be brought to bear on developing countries as is evident in the case of Stockholm 1972 and the Rio International Environment Conference 1992. At these conferences, bilateral and multilateral development agencies promoted environmental initiatives by offering loans and aid programs (ADB, 1997).

NEQA 1975 was Thailand's first environmental quality act and environmental management changed dramatically following its implementation. The Prime Minister was directly involved in the formulation stage, sitting as Chair of the NEB committee. The EIA was first initiated and incorporated into NEQA 1975. EIA was officially implemented in 1981. At the time, the purpose of its introduction was to meet the national development aims of the Thai government. The primary role of the EIA in this location was to achieve sustainable development by avoiding the negative

externalities of development activities with respect to the environment (ONEP, 2012). The EIA is often used under the Ministerial Mandate for certain activities. It is used to facilitate the decision-making process in development projects and serves as one kind of an environmental management method.

Prior to the establishment of the First National Economic and Social Development Plan (NESDP), the government between the 1950s and 1960s, focused on improving Thailand's airports, roads, public networks and dams via funding from supranational agents. Ludwig (1997) and Kaosa-Ard & Pednekar (1996) report that these goals, along with EIA and other development schemes, has led to a historical dependence on international funding. Furthermore, Vannasaeng (1989) and Piamphongsant et al. (1981) explain that this was a necessary means to an end in terms given the scope of infrastructural development.

Therefore, it can be argued that the influence of EIA has a longer history than the official implementation of the need to notify authorities about the 'type and sizes of projects or activities' that depended on EIA (1981) approval. For example, the World Bank had established a partial EIA in 1977, regarding the hydro-electric dam development of Srinalcarind. The World Bank (1974) reported that this dam scheme was raised by the Electricity Generating Authority of Thailand (EGAT). Every scheme involving a substantial development in Thailand that was carried out by government officials and it was mandatory for businesses to gain the approval of the EIA during its initial years following implementation. The MOSTE (1981) points out that the early criteria of the EIA directed that all Thai government schemes should apply to EIA akin to the EIA processes in the USA. Because of this, the establishment of EIA is exemplar of national policy-making with the support of global actors.

Additionally, in terms of development schemes, EIA has not been perceived as only a logical requirement, but also a political and governmental concept. Kaosa-Ard & Pednekar (1996) assert that the way in which EIA processes and environmental agencies have evolved to fit the state of Thailand is largely determined by government agents.

It can be seen from the NESDP 4 – NESDP 7 that between the periods of 1961 to 1996, Thailand's natural resources were often used to support economic growth. However, this consequently led to a rise in social and environmental issues. These issues were addressed within the eighth NESDP 8, between 1997 and 2001, which encouraged the path of sustainable development. The NESDP 8 can be seen to entail three key components. The first component pertains to achieving sustainable development through effective management. The second component focuses on the creation of a broad approach to national development and the third component concerns the identification of requirements for meeting economic and social development aims (NESDB, 2006). Thailand and other parts of Asia, however, suffered greatly from the economic crisis in 1997 (Phongpaichit & Baker, 2000). This resulted in policies that emphasised economic repair (NESDB, 1997). During NESDP 9 (2002-2006), the nation turned its attention towards both sustainable development and economic repair through an economy built on 'self-sufficiency'. From NESDP 9 to the current NESDP 11 (2012-2016), Thailand has focused on reforming its environmental structure (see Appendix 3).

The NEQA 1975 governed the EIA processes within Thailand, and gave approval for the state-owned National Environmental Board (NEB) to govern the regulations for Thai EIA processes. The NEB released the Manual and General Guidelines for EIA

Preparation in 1979, which offers assistance and guidelines for generating an EIS. Further developments in legal environmental protection led to NEQA1992. This act was built on the experiences learned by the environmental agencies, such as NESDPs, over the previous years. More prominence was placed on protection and management, as opposed to simple pollution control from previous acts (TDRI, 1996). Thus, the EIA has been adopted as an indispensable tool for effective management of the environment. Under Section 46 of the NEQA (1992) (ONEP, 2012), the MONRE, with the approval of NEB, has the power to notify the type and size of projects or activities requiring an EIA. For large-scale projects that have the potential to cause significant impacts, EIA reports must be submitted to the ONEP. EIA reports have to be prepared by a consulting firm registered by ONEP. These reports are obligatory for a range of different industries including residential condominiums. MONRE notification, issued in 2012, listed 35 project types that are required by law to file a report (ONEP, 2014). According to ONEP (2014), the EIA policy was designed with very specific aims:

- The assessment of environmental impacts, when compared with previous assessments.
- The study of the effects of both short and long term human activity on the environment.
- The promotion of sustainable development through preventive measures and effective planning, thus leading to cost reduction in rectifying any problems.
- The enhancement of environmental considerations, especially focused on planning and decisions.

As a result of these initiatives, the legal system of Thailand has been modernised and improvements have been continuing over the past years. It was imperative for the legal system to be updated in this way so that Thailand could better deal with the global world. However, despite these advancements in the Thai legal system, there have been failures with regards to modern environmental law (Langkarpint, 2000). The problems posed to Western industrialised countries in resolving environmental issues are significantly diminished compared to the issues faced by Thai authorities (Boyle, 1998). Despite having constrained political assets, the pressures for development and economic advancement are still as significant as in Western industrialised states. Furthermore, the political adoption and prospects for integration of environmental and sustainability demands is diminished, while demands for regulation from within society is generally less. Consequently, the political establishment does not give much weight to demands from an already frail environmental advocate community for change (Boyle, 1998; Langkarpint, 2000). Moreira (1988), Roque (1986), and Grindle (1980) have underscored particular factors that contribute to this situation. These include dictatorship, poverty, dominant economic and political concerns of a narrow section of society, poor access to data and knowledge, low literacy levels, as well as weak civil society structures.

5.4.4 EIA Policy Alterations

The type and size of projects that require EIA were set forth in Section 17 of the NEQA 1975 Act (ONEP, 2014) however the NEQA 1975 was amended in 1979. It became known as the Ministry of Science, Technology and Environment (MOSTE), and it defined the criteria for activities that would require EIA. In 1981, the first announcement was made detailing the size and types of projects that would require

EIA (Yap, 1994; Reutergardh & Yen, 1997). This announcement covered public and private projects (Tongcumpou & Harvey, 1994).

Boyle (1998) points out that there was little economic and political input in environmental protection during the initial implementation stages. Furthermore, at this time, economic institutions had more authority than environmental ones in many cases. For instance, the power of the ONEB was considered to be relatively weak. Yap (1994) explains that the proponents had full authority over whether or not to encourage public participation in the EIA process.

Thailand experienced a huge number of environmental issues and struggles prior to the end of the 1980s. As a result, environmental problems – and the absence of sufficient natural resource management strategies – achieved greater recognition among the public. Reutergardh & Yen (1997) as well as Yap (1994) explain that, therefore, the NEQA 1975 was no longer believed to be a sufficient approach to dealing with the issues that had occurred. Only administrative applications were covered by NEQA 1975. NEQA 1978 did not empower NEB with any legal powers. The NEB did produce a guide for the practical application of EIA. However, this did was not backed by law to ensure enforcement. Therefore, the amended NEQA 1992 was introduced. As part of improvement and conservation of the NEQA 1975, a broad variety of projects must be evaluated using EIA in Thailand. According to Stærdahl et al. (2004), project proponents and, where relevant, government agencies, were involved in talks with NEB (operating under the MOSTE, and previously under the Office of the Prime Minister) in order to identify projects that might have negative effects on the environment. Under the NEQA 1992, the EIS is detailed, in association

with this modification. In the years that have followed, a number of statements have been broadcasted in order to ensure that the act is executed.

NEQA 1992 provides details concerning the sizes and types of activities or projects – whether private, state or government run – that are subject to an EIA. It further provides details on the relevant guidelines, regulations, rules, processes and quality criteria that must be followed when conducting environmental impact reports. The projects subject to an EIA, based on size and type, were determined by the MOSTE and supported by the NEB, as per Section 46 of the NEQA 1992 (ONEP, 2014).

The NEQA 1992 also authorised the 20-year plan passed by the Cabinet in 1996: The National Policy and Prospective Plan for the Enhancement and Conservation of National Environmental Quality, 1997-2016 ('the Plan'). As part of the Plan, the recovery of renewable resources is supported through the provision of various facilitating methods. The Plan also outlines broad objectives for different areas of concern, and responds to the issue of waste and pollution through various environmental management techniques.

The EIA was taken over by ONEP, as a division of the Ministry of Natural Resources and Environment (MONRE), in 2002. As Pantumsinchai et al. (2003) and Tan (2002) explain, MONRE was introduced to manage the tasks of the former MOSTE. As of today, responsibility and authority for EIA assignment lies with the MONRE, supported by the NEB, as per Section 46 of the NEQA 1992. In 2012, the MONRE notification detailed a total of 35 public and private project types and sizes, including large-scale housing development and land adjustment (ONEP, 2014). Table 14 illustrates key movements for EIA in Thailand.

Table 14 Key movements for Environmental Impact Assessment (EIA) in Thailand

Year	Event
1975	• EIA was first introduced in Thailand and pass into law in 1975 • The Enhancement and Conservation of the National Environmental Quality Act 1975 (NEQA 1975) was implemented
1981	• The Thai EIA system began • Ministry of Science, Technology and Environment (MOSTE) announced the first notification of types and sizes of projects which require EIA • 11 types of projects required EIA
1984	• Ministerial regulation of EIA Consultant qualification
1992	• The Enhancement and Conservation of National Environmental Quality Act 1992 (NEQA 1992) was implemented • 22 types of projects required EIA • Expert Review Committees (ERC) were established • EIA for condominium projects was enforced
2002	• Ministry of Natural Resources and Environment (MONRE) was founded
2003	• The Office of Environmental Policy and Planning (OEPP) was formally reconstituted under the MONRE as the Office of Natural Resources and Environmental Policy and Planning (ONEP)
2006	• Changed specification for EIA requirement of condominium project
2009	• 34 types of projects required EIA
2012	• 35 types of projects required EIA

Source: ONEP (2016)

5.5 EIA Implementation in New-Housing Development in Thailand

Outlying government departments are often responsible for taking policy from the formulation stage to the implementation stage. Hudson & Lowe (2004) suggest that during the implementation phase, the policy may be changed (or modified). This can occur due to a number of issues. This section examines whether the EIA has been implemented according to its objective. The EIA process does have strengths and weaknesses which are also highlighted in this section.

Glasson et al. (2005) explain that the EIA is a methodical procedure that seeks to assess, identify and forecast any serious effects that a project may have on the environment before the project is approved for implementation. Glasson et al. (2005) and Awakul & Ogunlana (2002), add that since the EIA assists in informed decision-making and therefore reduces the effort and complication involved in the decision-making process, it is considered a helpful evaluative tool. The EIA in Thailand ensures that all positive and negative effects of any project can be highlighted in advance, at the planning stage. The effects on the environment, as well as the communities affected are analysed. By doing this in the planning stage, it can be ensured that the most positive outcome possible can be actualised, whilst limiting the negative effects as much as possible (ONEP, 2014).

EIA is a decision making tool and plays a vital role in the Planning and Building Control legislation. Section 46-48 of the NEQA 1992 is the process primarily adopted currently. Regarding this act, The NEQA 1992 dictates that EIA is a mandatory process. In Sections 46, 47 and 48 of the NEQA, the EIA processes are outlined: environmental evaluation must occur prior to project implementation when the project may result in relatively serious environmental outcomes. The ONEP (2014) explains that an EIA report must be created and submitted when projects are legislatively required to receive approval before they can be carried out. EIA processes and associated stakeholders are discussed in the next section.

5.5.1 EIA Processes and Associated Actors

The Thai EIA procedure has 2 pathways: one requiring cabinet-approval and the other not requiring such approval. An EIA is undertaken in conjunction with a feasibility

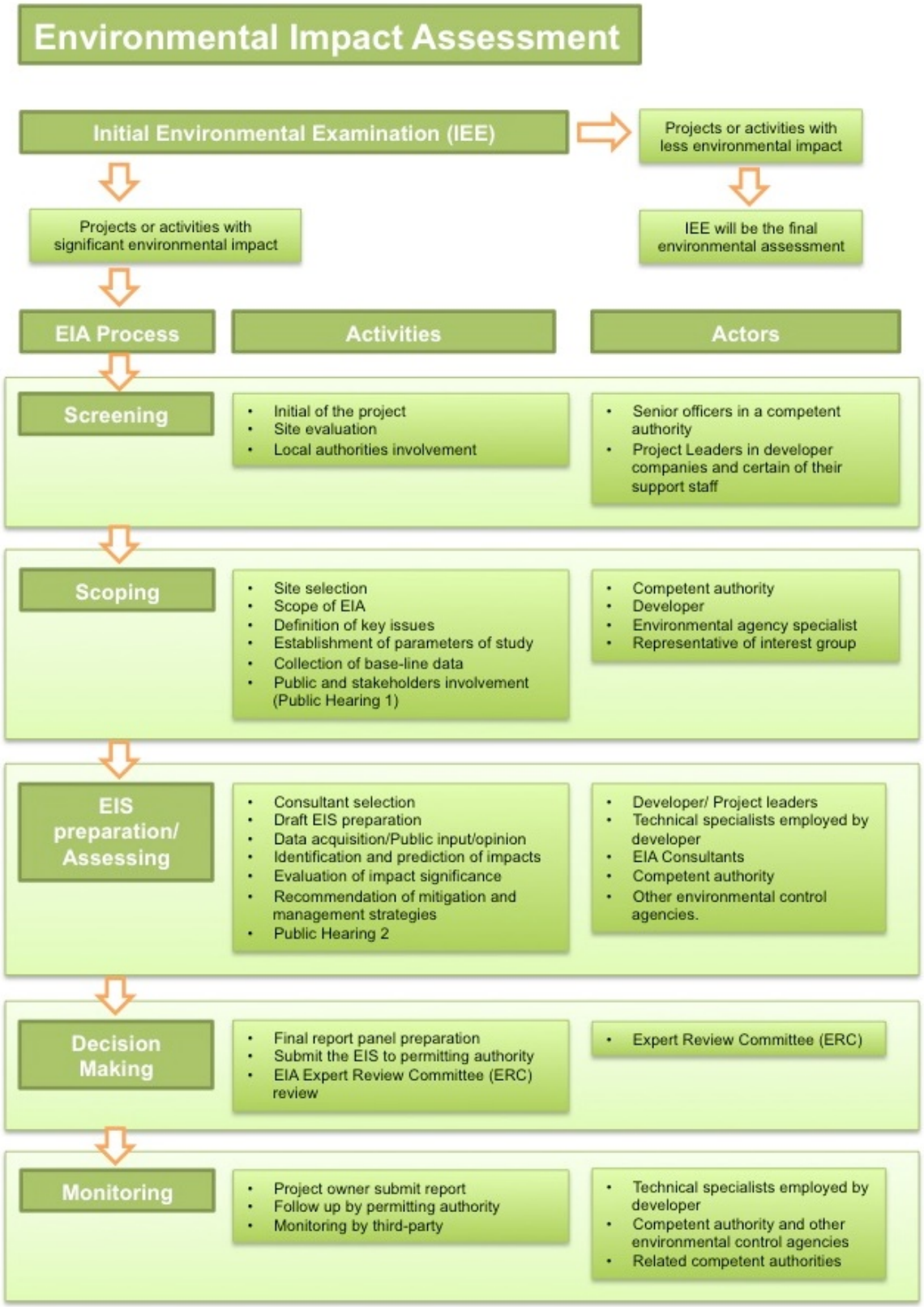
study. Whether for a government or public project, a report is filed with the ONEP. This is reviewed by the ERC and comments are then passed onto the NEB. The NEB has the mandate to request for additional comments from the ONEP. The complied report can then be presented before cabinet for approval, without any time-constraints. This is the main process for governmental projects. For private projects, the EIA does not require the approval of the cabinet as it is submitted directly to the ONEP. The ONEP makes comments on proposals only and the final decision is then taken by the Expert Review Committee (ERC) (ONEP, 2014).

The NEQA 1992 is the guideline on which the procedures and timeline of the EIA approval system is based. This system is made up of a number of phases and involves the work of several individuals (see Figure 26). The phases outline the various stages and duties relevant to the EIA procedure. The five stages of the EIA process are further discussed in the next section.

5.5.2 Major Actors Involved in EIA Process

Different locations offer different levels of access and involvement to different groups of people. According to the ONEP (2015), those who may be involved in EIA include governmental legislative and regulatory agencies, consultants, interested parties, members of the public, local governments, national governments, EIA evaluators, project proponents, appraisers and decision-makers (Munn, 1979). Furthermore, the impact that these actors can have on the decision-making process can differ from case to case. The roles and responsibilities are explained in this section for new housing cases in Thailand.

Figure 26 Five Steps and Corresponding Tasks of the EIA Process and Associated Actors



Source: Garb et al. (2007); ONEP (2015)

The Project Proponent (Housing Developers)

The housing developer is usually the initiator of any housing project. As such, the EIA needs to be involved with the housing developer at an early stage, in order to ensure appropriate planning occurs. All aspects and alternatives can be considered by the EIA, in conjunction with the private developer (discussed in chapter 3 and 4).

The Government Agencies

Government agencies involved in the EIA process can be classified into 2 groups as follows:

1) Government agencies involved in reviewing EIA reports: Office of Natural Resources and Environmental Policy and Planning (ONEP) of the MONRE

The government dictates the process of EIA implementation in Thailand. The NEB is permitted to request that environmental evaluations and reports are provided by project proponents where the NEB deems fit, under the NEQA 1992. The NEB's Chairman is the Prime Minister, and one of the MONSTE's two Vice Chairman positions are filled by the minister. According to the ONEP (2014), the EIA process is supported by an expert review committee (ERC), which is made up of various specialists from a number of sectors.

In 2003, MOSTE's ownership of the OEPP was handed to the Ministry of Natural Resources and Environment (MONRE) in response to government policy regarding bureaucratic change. From this point onwards, the OEPP was known as the Office of Natural Resources and Environmental Policy and Planning (ONEP). In Thailand, EIA

administration is carried out by the Environmental Impact Evaluation Bureau (EIEB) which is part of ONEP (see Figure 18), undertaking the preliminary review of EIS and making initial recommendations to the ERC who makes the final decision. ONEP (2012) defines the key actors involved in the EIA process as shown in Figure 26. ONEP must receive and review EIA reports for any project that is likely to result in serious environmental outcomes and is large in size. ONEP-listed consultants must complete the EIA report, which it then assesses and discusses with the relevant cabinet or agency.

2) The Permitting Agencies

Until an EIA report and project receives authorisation from the ONEP, the permitting agency – which is given legal authority to provide the developer with a permit for notification-appropriate project implementation – must defer the provision of the permit. This is also the case if the evaluation is not completed by ERC by the deadline expressed within the Act, as per Sections 47 and 48 of the NEQA 1992. The ERC is responsible for communicating the licensing criteria to ONEP. The main permit agencies for any new housing project, operating in Thailand are BMA, local government agencies, provincial governors and the Ministry of Interior (see Figure 18). The provincial governors provide the permission for the construction of any housing schemes within their jurisdiction. Central government agencies become more involved in any projects proposed in nationally sensitive areas. The decision-making process thus can be extensive. The NEQA 1992 stipulates that the EIA approval must be sought before final permission is granted for any construction project. All housing project developments in Thailand must go through the EIA process, whether for the City Plan, Building Control, and Condominium Acts. It is mandatory that the EIA

must be completed before developers submit their construction application. The permission for construction is then granted by the EIA's final approval. Many statutes are taken into account during this process. Unfortunately, as mentioned earlier, there is a shortage of experienced and qualified members who truly understand the EIA process, especially within other housing authorities. As an environmental authority officer that was interviewed notes:

> *This lack of experience means that the environmental aspect of the process has less consideration, with more emphasis placed on Building Control Acts or other planning laws. The EIA process is not effectively implemented by these agencies, which is the responsibility of the ONEP.*

The ONEP usually informs the relevant authorities of the decision, once EIA approval has been granted. As a result, many decisions are made based on the planning and other laws all together by-passing the EIA regulations. A planning authority officer that participated in this study asserts:

> *The Building Controls Act and other related planning laws is sufficient to make a decision on housing projects on a local level. Environmental consideration is included in these acts. However, the environmental concern featured in these acts are much weaker than the EIA procedures. Ultimately, a permitting officers' decision is highly based on other regulations, such as the Municipality Regulations.*

3) Expert Review Committee (ERC)

The ERC reviews the EIS for the EIA approval process, in accordance with the needs of the NEB. Within the EIA process, the decision-making takes place by the ERC. The ERC can then approve or reject any proposal. It can also review and make

recommendations. ERC is made up of members of governmental agencies, along with other NEB members (i.e. the heads of relevant government agencies and the licensing agency, the OEPP secretariat as the committee chairperson and OEPP officer as a secretary, as well as up to seven ONEB-approved environmental specialists). The OEPP (1996) explains that ERC members are a collective team of multidisciplinary experts, including employees of environmental NGOs and those working in the education sector. Members of the ERC are specialists working within numerous relevant industries and professions (Table 15).

Table 15 Members of Expert Review Committee

No.	Members	Position
1	ONEP Secretary General	Chairman
2	Permitting Agency or representative	Committee
3	Experts or Specialists up to 9 persons appointed by NEB	Committee
4	ONEP Official	Secretariat

Source: ONEP (2016)

ERC is, by law, deemed capable of approving, rejecting, revising or requesting further data on any given development activity or projects. The ERC is the mechanism by which the EIA procedures are realised. Members of the committee must not have conflicts-of-interest (ADB, 1997). There is also no compensation offered as part of the process. This ensures impartiality in the decision-making process. Objectivity must be maintained throughout this process.

The quality of the EIA process can be influenced by the ERC, especially if members of the ERC are chosen based on their position in any planning authority, such as the Department of Public Work and Town and Country Planning. Unfortunately, some members do indeed have little knowledge of the EIA process. Normally, ERC reviews

the EIS via a research report which provides substantial technical details, as compared to the EIA report, according to an EIA consultant that was interviewed. Absence of members at critical meetings is one major cause for delays in the approval system, according to an interview with an EIA consultant:

> *Several governmental authorities provide officers for the ERC membership. Unfortunately, because of this, limited time can force members to be absent and thus delay the process further, also leading to a back-log of decisions to be made.*

It seems clear that government is challenged by inadequate staff resources. It is essential that there are experienced officials, who are highly qualified, who can evaluate the EIA effectively, within the ERC. Only this way can the EIA remain effective in its mandate. Shortfalls in more specialist members is very detrimental to this whole process. The ERC, moreover, has no total authority over decision-making because it has been co-opted by political bodies, particularly in government projects. In the past, there have been instances where the ERC members have been removed if their views differ from that of the government, or if they disagreed with the project aims and objectives; in such cases, government representatives substituted them (ADB, 1997; Chompunth, 2011; Simpson, 2015; Wells-Dang et al., 2016) (discussed in chapter 7).

4) EIA Consultants

It is the responsibility of the EIA consultant to review the project proposal and to compile a report highlighting the various EIA areas of concern, including direct, indirect, short-term and long-term environmental impacts that may be realised as a consequence of implementing the proposed project. The EIA report typically

concludes with recommendations on the means by which any adverse effects that have been highlighted in the report may be mitigated in practice. Established consultancies can be granted licensure for one to three years. According to ONEP (2015), there are currently 77 EIA consultants in Thailand that can be categorised into three typologies according to the length of their respective licenses: 3 year- license (50 companies) 2 year-license (24 companies), and 1 year-license (3 companies). Where significant detrimental environmental impacts are highlighted, it is the responsibility of the EIA consultants to propose alternative pathways for delivery of the scheme. Typically, such proposals involve design amendments to reduce detrimental effects, but could also consist of advice to relocate the scheme in an entirely different location.

In reality, the relative skills of registered EIA professionals is subject to wide variation due to the burgeoning number of schemes requiring environmental impact assessment as a result of a rapidly growing economy leading to increased housing demands. As a result, there is a wide spread deficit of EIA consultants (OEPP, 1996; Ludwig, 1997). The investigation determined that the skills and experience required of EIA consultants are often specialisms associated with particular categories of the scheme (see Table 16). According to Petts (1997), it is the capabilities of the EIA consultants that determine whether or not EIA is effective and meaningful. The relationship between consultant experience and EIS quality has also been demonstrated in other research by scholars such as Glasson et al. (1997) and Kobus & Lee (1993). Consultants essentially need to have prior experience of EIAs in order to accurately assess their quality and determine whether or not the quality and effectiveness of EIA has increased over a certain period of time. In Thailand, EIA

consultants with the greatest number of EIAs approved for housing developments are depicted in Table 16.

Table 16 EIA Consultants that have most EIAs approved in 2014

EIA Consultants	Project Types					
	Industrial	Petroleum	Housing	Mining	Power Plant	Transportation
Consultant of Technology	4	6	13	1	8	-
Thai-Thai Engineering	-	-	27	-	-	-
Earth & Sun	-	-	21	-	-	-
CMS Engineering & Management	-	-	18	-	-	-
Phuket Environmental Service	-	-	17	-	-	-
En Tech	1	-	6	1	8	1

Source: ThaiPublica (2014)

A significant proportion of EISs prepared by these specialists frequently attained approval at the initial submission stage, following interviews between the EIA consultants and street-bureaucrats. Big Developer K comments that:

> *The quality of EIA consultants is related not only to the standard of the EIS, but also to the care and time taken during all the EIA processes.*

An environmental authority officer that was interviewed further comments:

> *...some registered EIA consultants do not possess adequate skills and experience of the requirements for an in-depth and successful EIA process. In addition, a great number of organisations do not provide EIA specialists to cover all specialities. Consequently, EISs are frequently compiled by 'cut and pasting' from those approved previously with scant regard to scheme specifics, particularly in relation to especially location and local environmental impact.*

Pantumsinchai & Panswad (2004) assert that EIA reports are commonly compiled by self-employed consultants contracted by scheme developers in order to minimise time and cost expenditure.

A dearth of current data on baseline physical and biological ecosystems and socio–economic aspects may also lead to oversights on the part of the EIA consultants. Sub-standard methodologies are being implemented to determine and quantify the potential scale of detrimental environmental effects (Pantumsinchai & Panswad, 2004). An environmental authority senior bureaucrat notes that:

> *EIA consultants tend to prepare EIA reports in favour of the project proponent since they are paid by the project proponent to prepare the report with the aim of getting the approval from ERC. This kind of arrangement undermines the reliability and credibility of the EIA report.*

5.5.3 Five Stages of the EIA Process

In this section, an overview of the ways in which current Thai EIA processes for new housing developments are practically implemented is presented. This section further includes a summary of the Thai housing development project pathway. This approach enables a thorough evaluation of the means by which the current EIA approval process conforms within the standard procedures for the development of new housing projects. Five major stages in the EIA processes are identified and discussed along with the factors that contribute to its advantages and disadvantages, with regards to the manner in which it is currently implemented.

In 1975, the first compulsory requirements for EIA in Thailand were announced. These were subject to further development, leading to an inclusion of Section 46 of

the NEQA1992, the MONRE which, with the approval of NEB, specified the size and form of schemes subject to compulsory EIA requirements. The housing development project was added in 1992. For new housing development projects that need EIA approval, the plan to carry out a housing project in a certain geographical area represents the earliest stage of development projects. Following this, the idea will be tested for engineering and economic viability. The outcomes of these tests are then used to create a detailed project plan once the decision has been made to start the development project. At this point, the housing developer requests authorisation to commence development by contacting the relevant authorities and submitting the appropriate paperwork and application forms and after which the EIA process begins. The Five Steps of the EIA process are related to particular tasks and the public is permitted to contribute to each step. Chesoh (2011, p.120) has summarised the five overarching steps of the EIA process as follows:

Screening which encompasses launching the project, evaluating the site and making contact with relevant local authorities.

Scoping which involves site selection, assessing the remit of the EIA to be undertaken and requesting public and stakeholder participation.

Report preparation entails the selection of appropriate consultants, acquisition of data including the views of the public and compilation of a draft report.

EIA review and approval includes the compilation of the final report and review by an EIA expert panel. It further includes submission to the permitting authority for private schemes and submission to the National Environmental Board and to the Cabinet for government schemes.

Monitoring entails submission of reports by the project manager with review conducted by the permitting authority in addition to third party checking procedures.

Screening

The purpose of screening is to identify the need for EIA at the earliest stage of the project. Thailand has released a directive detailing EIA-appropriate projects and activities by size and type. The directive classifies projects into two categories: projects that could have noteworthy effects on the environment and that are of a type, size or scale that requires an EIA; and projects that are situated in environmentally delicate locations and therefore could have serious impacts on the environment. According to the ONEP (2014), in order to address substantial growth in project types and significant economic development in particular locations, the project type list has been amended four times: in 1981, 1992, 2009, and 2012.

The amendments were made to the list of projects in the form of a second directive under Section 46 of the NEQA 1992. The second directive incorporated an additional 8 EIA-appropriate types of project. The new categories included high-density residential buildings. The ONEP (2014) explains that private sector development activities are now incorporated into the project list along with state and government projects. There are now a total of 35 project/activity types deemed appropriate for EIS (see Appendix 5), with additional list items being introduced in 2009. As highlighted initially, NEQA 1992 details three key criteria for the conducting of an EIA:

1. The implementation of new development projects.

2. The redevelopment or further development of a project already underway.

3. The need for a new license in order to continue works on a project already underway.

This study particularly focuses on the implementation of new development projects. Table 17 presents the key requirements for particular types/sizes of new-housing development projects. Requirements for land allocation are specified in Annex A of a directive by the MONRE in 2012 (ONEP, 2012, Appendix II). As a consequence of EIA criteria, developers have to take these conditions into account when planning new projects, especially for large-scale condominium projects.

Screening follows the submission of a housing project proposal to the relevant permitting agencies. The relevant agency is dependent upon the proposed nature of the scheme and its site. The agency bears responsibility for the primary checking of the proposal to identify if the scheme can be categorised under one of the prescribed EIA lists. If an EIA is determined as appropriate, then the ONEP (the only EIA authority in Thailand) is responsible for deciding if the project will need to submit an EIS. The site information and proposed scheme design will be examined by the relevant ONEP body.

In Thailand there is no requirement for an exploratory EIA or initial environmental evaluation (IEE). Therefore, a significant proportion of schemes commence with a full-scale EIA undertaking relatively late into the scheme design and planning phase. The EIS will be submitted at a similar time to the applications for permission, as opposed to informing the screening stage decision-making process.

Table 17 Type and Sizes of Housing Development Projects Requiring the Preparation of EIA

Item	Type of project or activities	Sizes	Principle, Method, Procedure
27	Buildings according to the Building Control Act, which are buildings located in an area beside a river, lake, beach or close to or in a national park or historical park, which may potentially cause an unpleasant impact on environmental quality, where the building has a height of at least 23 metres or where the total floor area or individual area in the same building is equal to 10,000 square metres or more. Applications to construct such buildings must submit an EIA report when applying for a permit for construction or at the time of notification to local officials in case of no permit required.	With 23-meter height or more or the total floor area or individual area in the same building is equal to 10,000 square meters or more	Submit during application for a construction permit or at a time of notification to local officials in case of no permit required which defined by the Building Control Act
28	Land Allocation for residential or commercial purposes as defined by the Land Allocation Act 2000, which is defined as a proposal for at least 500 land plots or where the total allocated area is more than 100 Rai (viz. 16 hectares). Such development applications must submit an EIA report when applying for a permit for land allocation as defined by the Land Allocation Act.	500 plots of land or more or total allocated area is more than 100 Rai (16 hectares)	Submit during application for a land allocation permit defined by the Land Allocation Act
31	Residential condominiums projects, which according to the Building Control Act 2008, are defined as buildings with 80 rooms or more or a total utilisation area of at least 4,000 square metres. Proposals for constructions of this kind are required to submit an EIA report when applying for a permit for construction or at the time of notification to local officials in cases where no permit is required.	With 80 rooms or more or total utilisation area is 4,000 square meters or more	Submit during application for a construction permit or at a time of notification to local officials in case of no permit required which defined by the Building Control Act

Source: ONEP (2015, p.83-84)

Scoping

Scoping is where the impacts that need to be addressed are identified. Scoping focuses the EIA investigation on the critical factors (ONEP, 2012). According to the NEQA 1992, any scheme for which an EIA is compulsory is obliged to conduct the

EIS in line with ONEP preparation criteria published by ONEP (according to NEQA, 1992). Furthermore, NEQA (1992) requires that the scoping of each scheme should be constructed in accordance with relevant environmental legislation.

Environmental Baseline Data

In response to the impacts of housing development on environment (discussed in chapter 6), a large proportion of the Thai approach to EIA implementation is based on the framework provided by the US, due to the role of the World Bank in establishing Thailand's initial adoption of EIA. The U.S. Corps of Engineers Agency provided a foundation for the Four-Tiers System of Environmental Resources or Values, which served as a model for the Thai Manual and the scoping requirements contained within it. These environmental criteria relate to quality of life, human use, biological resources and physical resources (see Appendix 4).

ONEP (2014) dictates that these four factors must be taken into account when reviewing the current environmental circumstances as part of an EIS. Furthermore, it is essential that all types of environmental outcomes (i.e. indirect and direct) are outlined prior to the commencement of the project or activity.

Lawrence (2000) notes the significance of scoping in EIA theory. Whilst scoping does not appear to be hugely successful in Thailand, researchers such as Sadler & Fuller (1997) have pointed out that scoping represents one of the main tools that can be used to manage and evaluate EIA quality. At present, there is no official written criteria for decision-making or requirements. Furthermore, there is no sufficient way to record stakeholder's feedback within the EISs themselves. This means that it is not possible

to accurately determine whether or not stakeholders' feedback and concerns have been appropriately addressed**.**

EIA consultants must work in accordance with the formal scope determined for the EIS. EIA regulation states that ONEP staff are permitted to offer guidance on the relevant scoping aspects of EIS on an individual basis and in alignment with the formal Manual (ONEP, 2014). EIA consultants identified that the lack of EIA experience amongst ONEP staff is problematic in ensuring a well-defined EIA scope.

The primary focal points relevant to individual EIS' vary because they relate to the different work experiences of the ONEP staff gained by working over a variety of housing development projects. Again, this is interpreted as a result of the absence of relevant guidelines for EIS scoping (interview, EIA consultants, 2014)**.**

Furthermore, neither the ONEP staff nor the EIA consultants are able to decide whether any EIS was complete until formal ratification by the EIA approval process. Only then is the EIS subject to regulatory scrutiny with the ERC being in a position to decide whether the submitted EIS is appropriate and deserving of approval. There have been instances where EISs have been turned down by the ERC because they were appraised as incomplete. For housing developments, these EIA process deficiencies are obviously apparent leading to initial ONEP rejection of the EIS. Subsequent resubmission of the EIS eventually leads to approval and to ERC requirements for a more detailed review. Examples like this can result in disagreements between EIA consultants and the ONEP staff. This is especially relevant when the EIS scope was recommended by ONEP staff, only to be eventually rejected by the ERC. Furthermore, this situation results in unnecessary uncertainty

for the time required to achieve EIA approval (interview, environmental authority officer and EIA consultants, 2014).

The efficacy of the scoping procedure will have a major impact on the standard of the final EIS compiled. A formal guideline approach is not suitable for every scheme since it will be constructed to comply with minimum EIS requirements. It can therefore lead to two main difficulties for EISs: (1) lengthening of the EIA approval process if the ERC considers the EIS to inadequate, or (2) failure to obtain approval since the EIS is perceived to be of sub-standard quality (interview, EIA consultants, 2014). Both these issues elucidate the recalcitrance of developers to initiate EIA processes.

Because the ONEP and other organisations involved in the implementation of EIA have little political power and credibility, this causes a number of issues in that they are unable to fully understand and influence EIA processes. It is for this reason that external actors are prescribing EIA as a 'top-down' requirement, as explained by Rayner (1993). The issue regarding organisational capability is explored further in chapter 8. Therefore, there is a need to establish the resources, people and institutional capability required to effectively implement the legal requirements for EIA as well as to establish the legal requirements themselves, as has been achieved in developed nations.

Environmental Impact Statement (EIS) Preparation

The Environmental Impact Statement (EIS) is created around a hypothetical prediction of environmental outcomes and is technical in nature. The report must

highlight an acknowledgement of natural resources and environmental considerations with regards to the implementation of the project. Furthermore, mitigation strategies should be proposed in order to illustrate that the project proponent is willing to take the necessary measures to avoid or minimise environmental damage (ONEP, 2014).

The DOE (1994) explains that the purpose of the EIS in planning is to assist the decision-making process. Horberry (1995) adds that in order for informed and effective decision-making to take place, the EIS must be able to obtain information from various fields and experts in order to provide all decision-makers with the necessary insight. The purpose of the EIS, therefore, is to present both the positive and negative effects a proposed action will have on the environment along with an overview of current environmental conditions and circumstances. It is important that the content and structure of the EIS adheres to the prescribed framework and criteria as advised by the relevant organisation, and that the information within it is presented as a formal report. Overall, it should be understood that the decisions made by those assigned to undertake this process take into account the information provided in the EIS report along with other factors.

Further to the above points, it is important that the report identifies a number of possible alternative approaches with regards to minimising pollution. These measures might include alternative implementation options or the selection of a different location in which to carry out the project. Where larger scale projects have the potential to inflict greater environmental impacts, the EIA should be submitted to ONEP for review with recommendations. Under these circumstances, the EIA should be compiled by an ONEP registered EIA consultant. The NEQA 1992 presented five key components within the final EIS;

- **Project Description** provides information on various project factors, such as design, setting, size and project type.

- **Baseline Conditions** provide environmental information regarding the local area and adjacent locations.

- **Evaluation of Environmental Impact** analyses the project with consideration of the four resource classifications.

- **Suggested Mitigation Strategies** aims to reduce or avoid environmental degradation caused by the development project. These strategies do not have to be included in the initial project proposal.

- **Monitoring and auditing** outline the measures that will be taken to monitor the adherence of the development scheme to environmental protection criteria, such as emissions.

It has been highlighted as one of the most commons reasons rejection of EIS submissions, often entailing the requirement for multiple re-submissions of EIS before approval is finally obtained. As noted by an environmental authority officer that participated in this study:

> *A great number of EISs contain excessive details on current environmental conditions, but with limited data for environmental impacts potentially resulting from the proposed scheme.*

As mentioned previously, a great number of failed EIS submissions consist of reams of descriptive information, without due regard for the specific siting of the proposed project, resulting in inadequate information on which to base a rational decision.

Other reasons for failure include insufficiency of data on potential local environmental effects; determination, prediction, and assessment of the major impacts; alternative scheme options and also proposed environmental impact mitigation strategies. These inadequacies are viewed as a consequence of submitting duplicate information from previous EISs without sufficient consideration of site-specific issues (interview, senior and street-level bureaucrats, 2014). However, it is unclear whether the EIA results have been integrated into developers' decision-making in the project planning process. It is also questionable whether competent agencies take EIA results into account when granting permission for project construction and operation. This is discussed in chapter 6.

Pimcharoen (2001) affirms that EIS preparation is an issue for many EIA consultants. One of the main issues noted was that developers often have little consideration for the environment and the impacts their projects will have on it (Pimcharoen, 2001). In terms of developer-related issues, one of the main problems is that EIA documents are not used properly by developers when determining how feasible a planned housing project will be (Pimcharoen, 2001). It is underscored that EIA is often only adopted once the housing project has begun, and EIA is not considered an area of major concern for many developers (ADB, 1997; Boyle, 1998; Chesoh, 2011; Pimcharoen, 2001; Suwanteep et al., 2016).

An EIA consultant comments that, in a number of cases, insufficient information from developers has caused delays in the EIS preparation process. This issue can be seen prominently in housing development projects' EIS preparation. Developers' intention to participate in EIA practice can be indicated by the amount they are willing to spend on EIS preparation. Ludwig (1997) claims that the majority of data relating to EIA

processes in Thailand are not widely accessible to the public. EIS is frequently presented in a manner that is difficult for non-specialists to understand, and often tends to be of a poor standard. (Ludwig, 1997; Wells-Dang et al., 2016).

Public Participation

A vital constituent part of the EIS preparation is public participation where the opinions of local communities and other stakeholders are sought via public meetings and questionnaires (ONEP, 2014). This approach typically requires the accumulation of unquestionable site specific data from the field in order to determine a standard benchmark against which the potential environmental impacts can be assessed.

Over recent years, public awareness and participation has risen in relation to environmental issues. Consequently, Vatanasapt et al. (2003) highlight the increasing public demand for more involvement in decision-making, especially when it comes to the execution of development projects and other key activities. As Ogunlana et al. (2001) and Muanpawong (1999) point out, official EIA report results tend not to be accepted by the public due to the absence of real public participation. Furthermore, Tongcumpou & Harvey (1994) note that public participation is not properly defined within the EIA system despite this being an area that is meant to be significant.

Yao (2006) reports that legislation now exists to support greater public participation, whilst researchers such as Beierle (1998), Chess (2000), and Rowe & Frewer (2000) highlight the increase in demand for public participation. Consequently, both domestic and international decision-making could be impacted. According to Creighton (2005), the reason for this growing level of interest and activity may be that public participation is seen to provide significant advantages, especially in the form of

public advocacy for development projects. Nevertheless, the OECD (2005) notes that government investment in public participation differs greatly from government investment in assessing outcomes. Furthermore, Charnley & Engelbert (2005) argue that some believe public participation to be a drain on time and money when implementing development decisions. Additionally, some argue that greater public participation only causes disputes between stakeholders to worsen.

Bureekul (2000) explains that the Thai Constitutions, NEQA 1992 and other legal and regulatory measures do offer Thai people the right to participate in projects related to pollution, resources and the environment. However, Bureekul (2007) and Nicro & Apikul (1999) note that the government still has ultimate authority.

Despite the above points, public participation and consultation is still significantly lacking in Thai EIA. In Thailand, public participation is not a compulsory EIA stage, although a public hearing may be necessary for select development schemes subsequent to an NEB ruling. Such public hearings for an EIA must be carried out at least twice (according to MONRE directive (2009)). The initial hearing is carried out at the commencement of the EIA in order to collect views on the draft scope of study (including potential advantageous and detrimental effects that may result). The last hearing takes place at the same time as the preparation of the draft EIA which includes proposed mitigation actions. Remarks made at the last hearing are included in the EIA report.

Although public participation is considered a primary constituent of an ideal EIA process, it is not compulsory under Thai EIA legislation. In fact, the public has hardly had any involvement at all in EIA procedures: there is no public assessment and

consultation in the EIS procedure with no input as to the relevancy of a scheme. This has led to public protests against some schemes where the EIA process has been evolved (Tongchompou & Harvey, 1994). For major housing development projects with significant local community impact, schemes must conduct public consultations and set aside a financial budget for compensation (interview, developers, 2014). However, the financial requirements for public meetings and any compensation outlay are typically managed by the developers and kept apart from any EIA costs assigned to the EIA consultants according to the EIA consultants interviewed (2014). Big developer J notes:

> *…We have public hearings but it usually happens when there are problems with the project and people file a complaint to the ONEP. They will then hold a public hearing to ask for local community's opinions. This is not mandatory. Normally they require a number of samplings in the radius of 1 km. and 2 km.*

In reality, processes for the involvement of the public carried out as part of the EIA procedure have not provided adequate proof since public opposition to the schemes later transpired. Public participation has been narrowly defined as a public hearing or meeting which takes place towards the end of the EIA process instead of constituting a continuous feedback process throughout the EIA process. In effect, this is akin to the planning process, where the public has no contribution to major process stages. However, a public hearing might be called by the ERC on an individual basis (interview, EIA consultants, 2014). This may assist the developers in identifying the level of local community acceptance of a particular housing development. For housing development schemes where local opinion was sought due to local

community sensitivities, the willingness of motivated individuals and groups to oppose governmental and private developers is apparent (Boyle, 1998).

Inadequate public participation and unsatisfactory communication results in many legal and practical drawbacks resulting in knowledge gaps and unequal dissemination of project data to the local community. The local community then develops a mistrust of the EIA assessment with the potential for violent protests which previous precedents have exemplified. This is a significant issue for developers, since housing development projects can be seriously held up if stakeholders and members of the public are not engaged at the beginning of the project (discussed in chapter 6). One environmental authority officer commented that "the critical nature of public involvement should never be overlooked as this can result in project delays, adverse publicity and even project termination" (environmental authority officer, 2014).

EIS compilation in Thailand is effectively a closed system, as a result of this apparent lack of public involvement. The local community has virtually no opportunities to view the EIS information with ONEP, project proponents as well as the EIA consultant represent the only key players in the EIS preparation process (Suwanteep et al., 2016; Boyle, 1998; ADB, 1997). As a result, preparation for the EIS relies entirely on the experience of the EIA consultants and the ONEP staff. It is therefore difficult for these participants to outline a definitive scope of an EIA investigation for any particular scheme since EIA by nature, is a multi-disciplinary field. An environmental authority officer asserts that:

> *the only authorised persons permitted to prepare an EIA in Thailand are registered EIA consultants. These consultants therefore retain sole responsibility for the production of the EIS until EIA approval is obtained. The permitting agencies who grant permission for the implementation of the proposed housing projects, have never been involved in the compilation of the EIS.*

In reality, EIS preparation is initiated by a housing developer who first identifies a suitable EIA consultant from the list of registered EIA consultants compiled by ONEP. Housing developers may require the EIA consultant to oversee both the EIS preparation and approval processes. In these instances, housing developers have minimal participation in the EIS preparation. Such developers are primarily concerned with obtaining EIA approval. Many EISs are produced by EIA consultants with negligible consultation with their clients, housing developers. Therefore, some EISs propose high levels of managed mitigation measures without any reference to the willingness and abilities of the housing developers to comply them. This arises as a consequence of the EIA consultants trying to appease ONEP and obtain an EIA approval as fast as possible (interview, senior bureaucrats, 2014).

EIA Review (A Formal Process of Reviewing the EIS by ERC)

The EIA approval process represents a significant component of the overall Thai EIA system. According to the OEPP (1996), in an attempt to integrate decision-making and EIA more successfully, the NEB has made efforts to enhance certain parts of the EIA process. For instance, an official EIA authorisation process was created in 1985, applicable to state and government projects that necessitated the authorisation of the

cabinet before construction could take place. There are no deadlines for approval to be granted and the EIS must be considered adequate if a project is to be approved.

This research concentrates solely on the housing projects approval process under the NEQA 1992 that are not subject to cabinet authorisation. The reason for this focus is that this study is primarily concerned with the ways in which the development of private housing projects is influenced by EIA. The EIS of the proposed housing project is prepared by the EIA consultant and developer (see Figure 27). In order to receive approval for the EIA, the EIS and any supporting paperwork are sent to the ONEP and relevant authorities for review. The EIS is then reviewed by relevant officials of ONEP to ensure that it has been completed properly. Following this, ONEP will send its comments to the ERC for consideration, which is the final decision-maker. ERC have specifically focused on the elements of detail within the issued EIS with special attention centred around the negative environmental effects, the extent to which the advocated mitigation approaches are effective, and suitable monitoring and auditing schemes prior to making a decision.

The mandated shortest processing period for the approval of the EIA of a housing project is 75 days. There is an initial 15-day deadline associated with ONEP's review of the EIA, which will be returned to the proponent if the report is not completed properly. A longer 30-day deadline is enacted when the report has been completed correctly and, therefore, does not need to be returned to the proponent. In the latter case, ONEP provides initial feedback on the application and forwards the case to the ERC. The committee then has 45 days to complete its evaluation of the application. With appropriate caveats regarding monitoring and mitigation, the relevant authority will offer the proponent a permit to begin carrying out the project, upon approval.

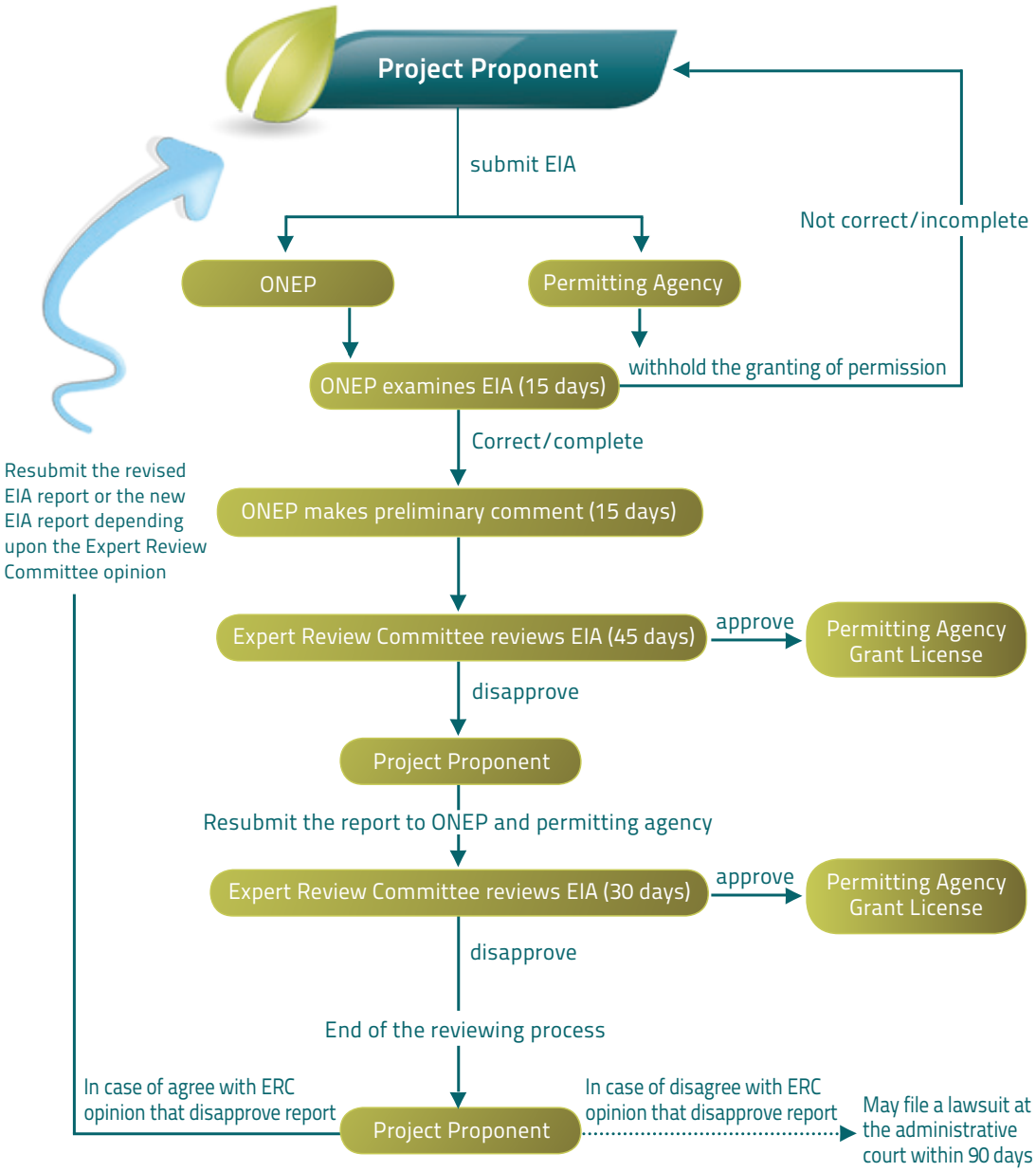
However, the proponent must amend the application and resubmit the EIA report to the board of ERC if the project is rejected. Upon receipt of a second application, a 30-day review deadline commences. The process is illustrated in Figure 28.

All EIA processes solely take place at the ONEP office in Bangkok and the EIA committee meets only twice a week during which time they discuss a maximum of ten projects. An average of one to two of the ten projects discussed will receive approval while the remainder must be modified. As such, it can take some time to secure EIA approval. According to Association-B and their consultant (2014), there is only one EIA committee responsible for processing 300 separate project applications at any one time. In the current climate, the legally specified period for the EIA approval is 75 days from the first submission. The average approval process time for new-housing projects, however, is 6-10 months or longer (Matichon, 2013).

Despite this, in practical terms, there is still significant augmentation of this period due to the low standards of the EIS submissions. This contributes towards interruptions as numerous EISs must be revised prior to approval. The extent of the EIA approval process is therefore longer than the legally articulated time; this is still the case even when the decisions are generally made in the specified timeframe.

A number of developers explained that, owing to the intricate nature of certain projects, the EIA approval period was prolonged (interview, developers, 2014). EIA consultant C opines that “there are numerous EIA reports submitted to ONEP for housing projects which leads to delays in the review process.”

Figure 27 EIA Approval Process for Housing Projects



Source: ONEP (2015, p.13)

Consequently, the uncertain EIA approval process times are a central inefficient aspect of the process. Thus, uncertain elements over the course of the process are regarded as limiting housing development projects, particularly in the context of intensive growth periods and urbanisation. These are the often cited as reasons for the hesitant application of an EIA process by project advocates.

With regard to the method of developing and constructing new houses in Bangkok, the building approval paperwork and associated documents are handed to several authorities, including the Ministry of Interior, the DPT, BMA, and a range of others responsible for civic facilities like electricity and water. The granting authorisation for housing project construction, the BMA, bears no responsibility in the context of EIA decision-making. As explained by scholar A, "EIA reports reviews are conducted at the central level therefore there may be a lack of sufficient information of the area of the project site."

The developer submits the EIS to ONEP, while the building application paperwork along with other relevant documents are submitted to the permitting agencies for the construction and operation approval. Hence, the EIA process is not conducted along with the project planning process. Additionally, the formalised EIA review entities in Thailand are the ONEP and the ERC, but the reviewers, owing to their position as government officers, are not independent panels. It is particularly noteworthy that the ERC is the ultimate decision-making authority with regard to EIA. In light of this, practical issues have arisen in the quality and related elements of the EIS review and, as the ERC is obligated to do two things; reviewing and decision-making, it could bias the EIA decision-making process. Thus, big developer H, asserts that "guidelines for the EIA report has been altered since changes were made to the ERC. This means that relevant parties are not too knowledgeable about new guidelines including when it will be applied."

Additionally, Suwanteep et al., (2016) have noted that ERC members acquire their positions according to their current position instead of on the basis of knowledge or speciality. Notably, certain ERC members are not familiar with the specifics of EIA.

Furthermore, ONEP has never issued a detailed instruction sheet for the EIA review aspects. This point is encapsulated in the views of some of the interviewees below:

> *The EIA regulation has no clarified transparency in verifying scientific claims. The ERC has no concrete set of regulations to control this lack of validity. Most policies and regulation change over temporal scales, depending on alterations in the individuals involved in the management process. Although reports are written using the same set of rules, different ERCs use distinctive ways of examination at different points in time…a lot of this is influenced by temporal particulates and how individuals involved perceive the situation. (EIA consultant, 2014)*

> *The ERC depicts certain criteria that are unrelated to the environment as part of their judgmental process…in certain cases, such considerations are overly dominant in their final decision making. This leads to difficulties and inefficiencies during process implementation, and therefore increases the time needed to complete the examination. This is because some laws and regulations are already included in construction permitting processes. (EIA consultant, 2014)*

> *EIA has no concrete legal regulation which developers can follow. There are no clear rules, regulations and stipulations to have a consistent decision in every period. For instance, ERC discusses the traffic; another member focuses on city planning and regulations; another member engages in discussions about the environment relative to residents nearby; and another one focuses on community health so on and so forth…As a result, new or inexperienced developers who want to endeavour in the housing industry would be unfamiliar with the EIA process. Their project schedule can easily go off the tracks. (Thai Condominium Association representative, 2014)*

Developers have complained that the EIA approval process under current rules and regulations is obscure and therefore, gives too much power to a committee whose decisions are seen as subjective. (Environmental Authority street-level bureaucrat-A, 2014)

New issues raised by ERC have implications for the budget allocated for the study which results in the delay of the amendment of the EIA report. (EIA consultant-A, 2014)

In this way, the housing developers must submit supplementary data again in order to meet the ERC requirements. In these contexts, certain developers and EIA personnel question the motivation for the requirements, particularly when the respective positions appear to switch (interview, developers and EIA consultants, 2014). One reason for this is an interruption in the EIA approval process's decision-making element, as some of the interviewees note:

The judgment of the ERC could be related to decision making towards the approval process, which normally can take 4 months at the earliest. However, such a fast process is very rare…the typical time lapse is between 6 to 13 months, or longer. The longer time taken in usual circumstances means that there will be more projects waiting for approval. Normally, there are approximately 200 projects that are waiting for approval from the ERC. (Thai Housing Association representative, 2014)

…*While at least 200 projects at any one time are lined up to receive EIA approval, just one committee was examining them. EIA evaluation is based in Bangkok and the EIA committee convenes twice-weekly; it is never the case that over 10 projects are looked at for a meeting. In terms of the average rate of project approval, just one or two projects receive approval while the others must be re-examined. Consequently, the process of*

submitting an EIA application is prolonged. (Thai Housing Association representative, 2014)

Monitoring and auditing

The final phase of the EIA process is not EIA approval. A central necessity in the EIA process is the establishment and running of an environmental management unit for the purpose of overseeing the implementation of protective environmental initiatives and environmental monitoring. This is generally an effective way to determine the effectiveness of the protective measures that are being implemented. The utilisation of monitoring and auditing in the EIA process facilitates greater interactivity, and the process itself should be defined according to feedback and modification. As stated by Tomlinson & Atkinson (1987), monitoring and auditing will also generate data along with this, and this can be pragmatic at a series of instances after the project receives authorisation.

Another element of the EIS is a monitoring plan, which logs the proposed initiatives in order to check the effectiveness of the environmental control and management obligations that are included in the EIS for completed design, construction, and operational phases. With regard to approved housing construction, the manual dictates that the proposed monitoring process is provided within the EIS. According to NEQA 1992, the developers are then required to submit monthly environmental monitoring reports. These updates are used to indicate that the proponent is sufficiently managing issues such as: solid waste management, air pollution, the disposal treatment and collection of industrial liquid waste and sewage, environmental issues and sanitation, water treatment and water supply (ONEP, 2014). ONEP (2014) adds that in order to

guarantee that the activity or project will be conducted in accordance with environmental requirements, the report should present the necessary analysis and sampling as part of the monitoring strategy.

The purpose of NEQA 1992 is to direct ONEP in terms of the supervision, monitoring, and auditing initiatives linked to the establishment of environmental mitigation measures of projects and activities. It seems to be the case that the NEQA 1992 plans for ONEP to exercise power in terms of requiring the assessment of environmental protection measures within the EIA and the issuance of monitoring logs (ADB, 1997). In the absence of this kind of authority, ONEP is unable to log the activities thus undermining whole EIA process and rendering it a paper activity. In light of this, one is motivated to ask the following question: in the context of ONEP having the authority to mandate monitoring and reporting, what measures can the body take if the developer will not perform?

Although Thailand, in pragmatic terms, has established programmes that help monitor and audit environmental effects, the nation has no policies that mandate the systematic monitoring of the environmental and natural elements involved in an EIA following the building stage or in the context of continuing operations. Consequently, no effective way in which to assess the existence of the anticipated influences can be carried out. In a similar way, a relatively small number of institutional processes have been formulated to ascertain whether the suggestions provided by the assessment – in terms of reducing, mitigating, and preventing anticipated effects – were carried out by the project's advocate.

As stated by the NEQA 1992, the Thai EIA measures mean that the EIS must formulate monitoring and auditing schemes. Despite this, when viewed in the real world, the important stages are infrequently carried out once the projects have received approval. One central issue is the absence of appropriately qualified employees in ONEP and associated governmental entities who have the capacity to follow-through the realisation of these phases.

Employees' available time is generally occupied by ONEP's workload in processing EIAs (ADB, 1997). Consequently, ONEP does not focus sufficiently on reviewing the project advocate's monitoring logs, analysing the monitoring data, and monitoring compliance. In light of the numerous and growing number of projects in the EIA process, it is not likely that, in the coming years, ONEP will have enough employee coverage to carry out its surveillance role effectively. Based on interviews with an environmental authority officer, it has been found that the majority of permitting agencies do not follow up on the projects that need to submit monitoring reports. There is barely control over the monitoring process of projects that have been approved, especially housing projects. Furthermore, with regard to the post-approval stage of the projects in the housing development process, the espoused mitigation approaches and monitoring schemes are entirely unacknowledged by property developers. These monitoring schemes have not been previously carried out in light of projects being finished (interview, environmental authority officer and scholars, 2014). According to OAG (2012), ONEP has received the EIA monitoring report at a lesser rate in terms of EIA approved projects. This is considered to be severely insufficient. Between 1998 and 2011, 3940 projects were approved by the ERC. Despite this, approximately 900 projects submitted monitoring reports to ONEP and

permitting agencies. That means more than 70 percent of approved projects avoided monitoring processes, as noted by the environmental authority senior bureaucrat, "misunderstandings concerning the role of EIA monitoring means that some permitting agencies do not carry out EIA compliance monitoring."

In light of this, MONRE, as noted by Tan (2004), is broadly viewed as impotent in terms of monitoring environmental mitigation initiatives. Although this lack of capacity is evident across all governmental bodies, this is especially the case with regard to under-developed environmental agencies that are tasked with monitoring and implementing environmental measures. Bodies of this kind do not have a high position in the bureaucracy and, furthermore, they are relatively impotent, under-staffed, and are often lacking in terms of ability and resources. As a result of this, both the regulatory bodies and the private sector lack a seriousness in the way that they approach environmental regulation. Given that so little attention is paid to proper auditing and monitoring in EIA practice, it makes sense that little is known about how environmental management and development projects' EIA work together. According to an NGO that was interviewed, "ONEP should be a neutral agency that checks and monitors the environmental impacts caused by condominium construction and development."

In summary, The EIA process, supervised by ONEP, is directed by the institutional fight for potency, and it is notable that the enforcement of EIA in Thailand is marked by a range of negative aspects. The range of projects included by the EIA process is generally regarded as too narrow in the context of the scope and form of the projects it is used for (Stærdahl, 2004; World Bank, 2006). In addition to this, the procedure is expensive and long, and certain researchers explain this with reference to the resource

limitations for ONEP. MONRE is generally considered as ineffective in terms of the power it has to monitor environmental mitigation plans, as stated by Tan (2004). It is argued in this study, that it is further associated with weakness in terms of driving public engagement and recruiting effective consultants. The absence of public participation is caused by the close government control of processes, and the survey of EIA research remains the purview of government bodies and government-appointed boards. The World Bank (2006) highlights that a corollary of this approach is limited options for authentic public involvement. The study found that the absence of clarified EIA code of practice makes Thai EIA process especially EIS preparation and EIA review stages very uncertain and difficult. Another critical issue related to the Thai EIA process which needs close scrutiny is the screening phrase of the procedure. Whilst little attention is paid to this in the EIA guideline, what has been learnt since the early '90s could be used to update and ameliorate guidance on this part of the process, and so improve EIA system throughout Thailand.

5.6 Conclusion

Although the research community is aware of the relationship between unfettered economic development and the destruction of the environment, Thai attempts to tackle the related environmental issues are largely characterised by a retrospective rather than forward-thinking approach. The introduction of EIA from the policy formulation to implementation stage has been explored. It further delineated the precise requirements of EIA processes in Thailand, and further evaluated EIA implementation. The study found that the shortcomings of EIA implementation that housing developers encounter, include a lack of systematic decision-making procedures, inadequate legal regulation, unclear codes of practice, inconsistent ERC

decisions, centralisation and lack of public participation and monitoring. In this chapter, the challenges of implementing EIA were critically discussed and in the following chapter, the consequences of these challenges are analysed. Explicitly, in the subsequent chapter, the ways in which a new housing project in Bangkok has been affected by the implementation challenges of EIA is critically analysed.

CHAPTER 6 COMPLIANCE WITH THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

6.1 Introduction

This chapter starts with an investigation of the relationships between and across state agencies, private developers, and civil society, three aspects of this EIA process are of interest and how the interaction between these stakeholders takes a different form involved in implementing EIA. Then the chapter explores EIA implementation and the evidence that the ineffective regulation has had an impact on new-housing development and other aspects of society, individuals and groups. The study explores how patterns of housing development have changed, and whether such alterations are symptomatic of the successful implementation of EIA provisions. Hence, this chapter identifies and explores the conflict of interest caused by integration of EIA into housing development. In addition, the chapter further identifies the EIA impacts assessment from micro to macro scales, as well as socio-economic attributes of new housing developments, since there is the imperative of exploring whether environmental mechanisms are being put forward as a means of securing social exclusivity, as has been reported elsewhere.

6.2 Integration of EIA into Housing Development Process in Thailand

Government impacts the housing industry through not only laws that govern the housing market system, but also via specific regulations particularly EIA policy. According to Ball (2012), the housing development projects are affected by three primary elements;

1. **The long-term implications and cost of housing developments** - from conception to completion, projects can span over years, costing developers considerably which can lead to the acquisition of substantial leverage in enterprise and capital demands, risk of fluctuation in the housing market and other consequences over time. There is therefore no guarantee that projections will be realised upon completion.

2. **Housing production process and products** –the process can be divided into four components including acquisition of land, conception of ideas, feasibility and preliminary design, approval from regulatory bodies, and site construction. Such stages have been observed to be recursive, given unforeseen tribulations throughout the extensive development durations.

3. **Degree of regulation** – new-housing developments require a great deal of regulatory attention concerned primarily with land-usage. Other aspects include construction, structural and procedural matters, such as city planning, building control, and especially EIA regulation which is one of the regulation attributes that have an impact on housing market.

Following steps must be undertaken in order to initiate a new housing development project. First, the plan to carry out a new-housing development project in a certain geographical area represents the earliest stage of all housing development projects. Following this, the idea is studied for engineering and economic viability. The outcomes of these studies are then used to create a detailed project plan once the decision has been made to start the development project. The results of the feasibility study are applied to the project design, and the project commences (Grimes & Mitchell, 2015; Sunding, 2015).

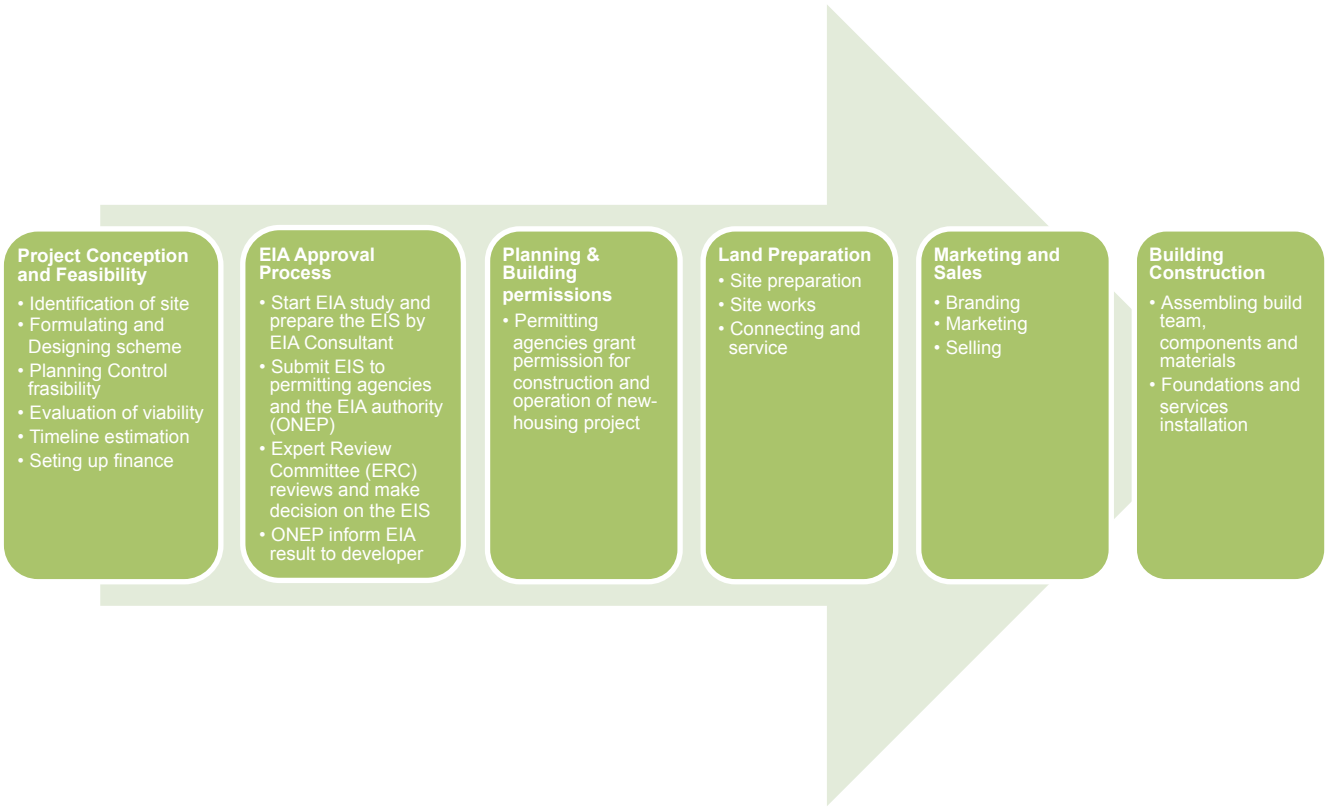
Consultants and specialists are employed prior to discussions being held with state agencies. These consultants help to identify and assess the feasibility of the project before the development site is purchased. Developers often take some degree of ownership over the site whilst designs are being created. The project designs will depend on the planning system and market demand (Grimes & Mitchell, 2015).

The project proposal may be discussed between developers and state agencies in an unofficial capacity, or a more formal meeting may be held prior to the development application process. The purpose of such a meeting is to determine and manage the risk involved in the project, identify design issues, and so on. The developers are then able to receive an assessment of their proposal from the state agencies' planning department. In some cases, various departments are involved in the process. This can lead to different feedback being given. Delays can be caused when concerns need to be addressed by the developer. In some cases, it is a differing of opinions within the local authority that results in varying feedback. However, many developers tend to believe that no overall consensus is needed for the project to go ahead (Grimes & Mitchell, 2015). Once development authorisation is requested by the developer, the developer must forward the proposal to the permitting authorities. Approval is granted based on the application along with the relevant documentation and application forms. At this point, EIA applicability is assessed by the permitting authorities, as per Section 46 of the NEQA 1992.

The approval will be made by the relevant agencies within 40 days from the date of submission if an EIA is not needed. Approval is usually given based on relevant laws and project planning in this case. When an EIA is necessary, guidance is usually sought by the developer from ONEP in Bangkok. This process is outlined in chapter

5. At this point, a consultant must be employed by the developer in order to go through the EIA and EIS process. Once complete, the developer then sends the EIS to ONEP for approval. Once approval has been given, the developer is contacted along with the relevant permitting agencies.

Figure 28 The EIA and the New-Housing Development Process in Thailand



Source: Compiled by Author

As shown in Figure 29 the majority of developers do not begin the EIA process until after the design phase, or towards the end of the project feasibility phase. Consequently, most of the main decisions regarding the project are made prior to commencement of the EIA process. Any project subject to the EIA must conduct the EIA. The developer can apply for approval for project operation and construction once EIA approval has been received. This informs the permitting agencies about the

proposed design. Subdivision and resource consent is needed before civil projects or extensive environmental projects can be carried out.

Theoretically speaking, the EIA and housing development process does not end with the operation and construction of the project, since auditing and monitoring must then be considered. In Thailand, these are legal requirements as part of EIA. The ERC and ONEP's approval of the EIS will depend on the monitoring, auditing and mitigation plans provided in the EIS. In most cases, approval is granted with the expectation that monitoring proposals are carried out. If this condition is not met, the approval of the project could be revoked, particularly if the impacts of the project are found to differ from the impacts outlined in the EIS that was submitted. Therefore, the developer must generate monitoring reports throughout the duration of the project and forward them to the relevant agencies.

Supervision of Thailand's new housing developments must be carried out by numerous agencies. In the case of EIA projects, different agencies will be involved in granting approval for the EIA and the building permit as well as the housing project itself. In the former case, the responsibility lies with the central government, whilst in the latter case, authority lies with local government agencies. Since Thailand has unique traditions in city planning, environmental qualities and national and local policy features, EIA approval is not integrated with city planning and building control. Planning and environmental management systems often come under the authority of various government authorities, although MONRE is officially responsible for supervising the EIA process. The MOI and BMA are officially responsible for city planning and building control. Housing project EIA has achieved

little integration with other planning processes due to the diverse distribution of authority in this area (discussed in chapter 4 section 4.5 and 4.6).

The majority of EIAs in new-housing development processes are undertaken following finance, location identification and other significant choice making, regardless of encouragement for project initiation cycle's early stages to be the point where EIA appraisal data is given to those in charge of such choices. Consequently, problems arise when recommendations to completely end a development, significantly amend it or temporarily halt it, are made on the basis of EIA results. With regard to the preparation of new-housing development projects, it is clear that options exercising the clear and balanced mechanism of EIA are hardly utilised. It is simply utilised to gain building licences, as a form of stipulated or extra paperwork that is necessary. Instead, from the initiation of a housing development project, there should be an incorporation of EIA as a rational mechanism. Consequently, all stages and aspects of a development should factor in EIA outcomes during the exercising of options. Economic and financial factors tend to be the major areas of concern despite the early preparation of EIA applications during the housing development process. The absence of clear laws that immerse EIA into the housing development process is one of the main causes of the issues arising in this area. Therefore, it cannot be asserted that EIA results have been fully applied during the decision-making process of housing development. Additionally, it cannot be clearly argued that EIA results are considered fully by the responsible agencies when approving the operation and construction of planned projects (further discussed in chapter 8).

Frost (1997) and Arts (1994) point out that it is important to carry out EIA reviews of projects both before and after project planning, since the EIA procedure is meant to be

cyclical in nature. It is proposed that both auditing and monitoring must be conducted in order to enhance the effectiveness of the EIA and its environmental forecasts (Tomlinson & Atkison, 1987). In terms of decision-making and planning, auditing and monitoring play crucial roles (Culhane, 1993).

Substantive Environmental Impacts of the Housing Development

The 'Report of Environmental Assessment Sourcebook' (World Bank, 1991) outlines three key types of environmental impact that large-scale housing development can have: direct, indirect, and construction. Golubchikov & Badyina (2012) explain that direct impacts can be found on-site, in the local environment or in the wider region, and can include issues such as unstable and high-saline soil as well as flooding. Direct impacts pose an immediate risk to local communities and can occur, for instance, when development projects have not been designed with full consideration of the environment. Indirect impacts can have a positive impact on the local economy in the short-term, but can have negative environmental impacts in the long-term. Whilst direct impacts are associated with the consequences faced by local communities and the environment, indirect impacts are associated with project resources and materials, such as timber, cement and bricks.

Construction impacts refer to impacts that are caused by the construction process itself, such as deforestation and land-clearing. This can cause issues as soil becomes vulnerable to the elements, particularly if excavation and other invasive construction activities are carried out. Additionally, Golubchikov & Badyina (2012) also explain that construction can have a negative impact on the areas surrounding the site since construction produces dirt, noise and traffic problems. When using the term

'environment', this refers to communities and populations (i.e. the social environment), plants, animals and the biophysical environment, as well as the greater natural environment itself. The consumption of energy and resources is therefore greatly associated with housing development projects and activities. Developers must give careful thought to the entire housing lifecycle as well as the impacts that each stage may have on the environment. The impacts that each stage of housing development can have on the environment are outlined in Table 18.

Table 18 The Impacts of each Housing Developmental Stage on the Environment

Stage of house lifecycle	Environmental impact considerations
Planning stage	Impact of the planned site on the local environment; relationships with the city; quality of the local built environment; mixed-use and density; polycentricity; infrastructure; public transport; green areas; environmental hazards.
Building design	Considering embodied energy and resource utilisation; enabling energy and water efficiency by design; integrating district heating and micro-generation; waste management; robustness and resilience; future-proofing; possibility of upgrading; shaping of lifestyles.
Construction	Safe, environmentally-friendly, material; minimisation of environmental impact from building activity.
Operation	Energy performance; air-conditioning, air quality; pollution by residents and impact of the local pollution on residents, water use and water management, water recovery; comfort and hygiene of homes; quality and energy efficiency of the local infrastructure and transportation; property maintenance and management; waste management and recycling; green practices; natural hazards.
Refurbishment	Choice of refurbishment material; energy efficient design; disturbance of the environment; management of construction waste.
End of life	Demolishing or reusing; recycling of building components; management of construction waste.

Source: (Golubchikov & Badyina, 2012, p.15)

6.3 Conflict of Interest Caused by Integration of EIA into Housing Development

The overarching focus of this thesis is to investigate interactions between government agents and private sector builders in the context of EIA procedures. To answer the research questions, the impact of possible disputes or conflict between different actors within the state institutions must also be evaluated. In order to investigate the nexus between state agencies, private developers, and civil society, three aspects of this EIA process are of interest. This is where interaction between agents takes a different form, from that involved in implementing EIA. Once legislation is in place, a great deal of business interest can be expected to focus on what companies have to do to ensure a project succeeds. In this section, focus is placed on the complex interplay and possible conflicts among the stakeholders. The issues are critically addressed in the following section.

Environmental conflict often affects a multitude of people, organisations, interests and resources (Dukes, 2004). These issues can revolve around management problems, environmental development strategies, restoration work or the negative implications of development projects on the environment. (Daniels & Walker, 1995; Canter, 1996). Such conflict not only refers to alterations in the physical environment but also to economic, political and social factors. Furthermore, the impact of environmental conflict may jeopardise the safety of physical property, lead to civil unrest and represent a significant drain of time and financial resources (Persson, 2006). These issues represent conflicting values and principles among stakeholders as well as competing interests (Kakonge, 1998). This represents the dichotomous interests of two parties as one group, with one wishing to access natural resources in order to

generate income or development while the other wants to prevent the further deterioration or exploitation of the environment. It is also crucial to note that the former group often has access to greater financial resources and thus has greater power (Stewart, 1998). Therefore, it is simply impossible for all stakeholders to achieve their goals in such scenarios (Smith & McDonough, 2001; Pol et al., 2006).

According to Jackson & Pradubraj (2004), large-scale development activities are the direct and unavoidable cause of environmental conflict as their impacts can be simultaneously beneficial and detrimental. In large-scale housing development, the two main sources of conflict are internal conflict and interface conflict, the former of which takes place between parties involved in the project and the latter of which takes place between developers and external stakeholders. Interface conflict often occurs during large-scale developments as different stakeholders have different values, interests and needs. This study focuses on the attitudes of six stakeholder groups. The groups include those affected by the EIA and condominium development project, such as state agencies, developers, EIA consultants, non-government organisations, buyers and investors, and local communities (discussed in chapter 4 and 5). Each group has diverging opinions on how interface conflict arises during the EIA approval process and it is this difference of opinion that is the primary cause of disputes.

The development projects also impact upon neighbourhoods and their cultures, customs, norms among others, Vatanasapt et al. (2003) argue. However, poorly managed and implemented development projects have had adverse effects on the local environment as well as negative social and economic repercussions. It is also common for developers to satisfy the interests of elite groups at the expense of the wider community, which naturally leads to public outrage. Discontent of this nature can

often fester as further projects are initiated, eventually leading to serious public opposition to up-and-coming regions (King Prajadhipok's Institute, 2007; Vatanasapt et al., 2003).

According to Garb et al. (2007), many developers and civic society take legal action against EIA outcomes as the assessment results often represent the beginning of negotiations or conflict disputes as opposed to the conclusion. There have been many cases such as local residents complaining of the impact of large-scale housing construction in their community, saying that it jeopardises their way of life. The building, for instance, blocks the light and the wind. The following case illustrates the conflicts that have occurred from EIA implementation in the condominium development process in Thailand.

The emergence of conflict between MONRE and BMA is reflective of the competing interests of government bodies on a local and national scale. Such issues often emerge in cases where MONRE manages the EIA process while the BMA issues the required development permits. In 2012, a project worth £ 56 million launched by Big Developer-I began construction once it had obtained EIA approval and the required construction permits. However, some members of the public objected to the development even though 70 percent of the project was complete and the remainder was scheduled to finish in the coming months. The developer claimed that they were proceeding with construction as usual and were assured that they were in their legal right to do so. Big developer I opines “We are going on with construction following our existing permit, and we are confident that we doing everything legal.”

As a result, the Central Administrative Court announced that the EIA reports approved by the ONEP are being implemented through public hearings that do not align with official legal requirements. This is because the public hearings are situated in areas further away than legal regulations currently allow, more than 1,000 metres away from the exact location. Rather, it is important to hear out the opinions of residents who live in local sensitive areas. Therefore, information in EIA reports examined by the ERC is not legally verifiable. The court has the legal power to terminate the EIA approvals as well as construction permissions. Moreover, the construction of condominiums has negative impacts on local communities, yet the BMA do not correctly monitor such situations, thus therefore fail to suspend the constructions. This results in consequences for residents in sensitive areas, so it seems reasonable to order to BMA to compensate for such damages to the aforementioned communities (Katharangsiporn, 2013). The case study of the BMA and local authorities is crucial to the final granting of building permission because it is highly important for them to implement the monitoring process in order to examine whether the construction process is being completed correctly under legal requirements, whilst not interfering with the rights of local citizens. In this case, transparency is the primary factor as local residents and state authorities should have ready access to any related documentation from the beginning of the project through to its completion (discussed in chapter 8).

While the developer is largely concerned with gaining EIA approval prior to the initiation of a construction project, they must also deal with issues that arise once the public learns about the development plans, regardless of whether or not it has already been approved by the EIA. As environmental authority senior bureaucrat states:

> *"The EIA regulation states that if any building project does not comply with EIA regulations, they will not be allowed to construct any buildings or issue any housing permissions. In the case that there is opposition once the project has commenced, the development will have to stop immediately.*

This has been a frustrating obstacle for housing developers but Beierle (2001) argues that this setback is due to the fact that activists are not consulted during the planning stages in the first place. Protesters serve to cost developers time and money during participation procedures and they generate significant animosity toward plans which can lead to delays or even the rejection of proposals (Chaisomphob et al., 2004).

Not in My Back Yard (NIMBY) and Locally Unwanted Land Uses (LULU)

There are groups that espouse environmental considerations and hence attract the support of 'NIMBY' (Not in My Back Yard) and 'LULU (Locally Unwanted Land Uses). NIMBY and LULU mean that the residents who are opposed to projects they perceive as a threat such as new development projects (Dye, 2008). Proponents of the 'NIMBY' movement acknowledge the imperative of developing new industry, roads, airports, power stations, waste disposal facilities, pipelines and similar infrastructure, and yet they oppose these projects in their local terrain, hence the term 'NIMBY'.

Housing developers currently face problems caused by the NIMBY and LULU, whose opposition has led to public protests over environment concerns. For example, the case of a prestige national artist is exemplar of this trend. Big developer K explains that they purchased the land beside the artist's property to build a condominium which could creates impacts on his property. The artist then complained that the inspiration he acquires upon opening the window and gazing at

the green scenery would be gone and his works would also change as the view from the house changed. Thus, the company's condominium project was disapproved by the ERC.

> *The frequently encountered problems in high-rise condominium project mostly concern the view and the blocking of wind and light. These are one of the reasons that condominium projects are often revised or cancelled. (Big developer K, 2014)*

In addition, in 2012, there was a renowned case of high-rise condominium development that was taken to the Supreme Court by those in opposition to the development after the Central Administrative Court sided with the EIA and the developer. As the developer that had approved the EIA of the high-rise condominium project, ONEP was the subject of a lawsuit by local residents but the Central Administrative Court held that ONEP had followed the correct legal procedure based on the testimonies given by those involved, namely local residents and members of the development company. It was also ruled by the court that the construction permit issued for the development was entirely legal (The Nation, 2012). NGOs and a group of 31 local residents sought an injunction terminating construction at the development site from the Central Administrative Court. This injunction was sought as local residents claimed that the high-rise condominium had caused water drainage issues, traffic jams, power outs as well as noise and air pollution. Due to the scale of the structure, residents also argued that the development posed a security threat to the area. Further, it was also claimed that the building overshadowed the green areas in the town as well as some local residential houses. Local residents also noted that they had not been included in the EIA public participation of the project and this

contravened the NEQA 1992. Thus, the local resident group requested that the court force the authorities to rescind the construction permits as the EIA had not been performed legally (The Nation, 2012).

It is often argued by developers that the state overly focused on the needs of local residents. The developers instead suggest that the EIA should place emphasis on the overall benefits of a project as opposed to its impact on a select number of people. Developers often believe that excessive focus is placed on how the project will affect those living nearby and argue that the state agencies should instead concentrate on the impact of the development as a whole as opposed to entertaining the opinions of local community groups:

> *The BMA has difficulty securing permission for condominium projects in Bangkok if they represent a threat to the local community and residents have voiced strong opinions against the development. The BMA has a tendency to avoid risk and deny permission for High-rise developments as opposed to adequately assessing the potential impacts of the development on the local environments. (Big developer G, 2014)*

According to a Thai Condominium Association representative, the issues experienced before and after securing EIA approval must be addressed and standards must be set in order to increase the trust of developers and prospective buyers in the system. As cases discussed above, after having purchased expensive land plots, developers cannot secure an EIA permit on account of local opposition to the project. A key part of the process is public consultation and this involves pursuing feedback from the public and local residents via questionnaires or public meetings so that their concerns can be taken into account by the EIA. The value of this practice must be

acknowledged as local residents who do not feel that their input is valued can cause significant delays to a project, jeopardise the image of development companies or cause the complete termination of a development project. It is also important that feedback is sought from non-government organisations (NGOs) and other key stakeholders.

Chompunth (2011) claims that state organisations are typically rather cautious when entering into any public dispute or conflict of interests. This level of circumspection may perhaps be attributable to the fact that there is no legal framework enforcing public consultation, which means that government agencies are also less likely to play an active role in the process (Chompunth, 2011). That being said, it could also be argued that the absence of a legal framework necessitating the involvement of government bodies limits the extent to which certain government agencies can participate in or influence the outcome of such disputes (further discussed in chapter 8). This argument is substantiated by the work of Callway & Ayre (2005) who state that a more cohesive political framework is needed to increase the extent to which stakeholders can get involved. In addition to inadequate involvement by relevant government agencies, it has also been argued that political policy, which is often driven by pressure from the public, has the capacity to affect the implementation of EIA processes at the policy level (senior bureaucrat, 2014). It has been further suggested by a senior bureaucrat of the environmental sector that:

> *Traditionally, different government sectors were driven by their own interests of particular missions and operated only within their respective boundaries. As such, the BMA and MONRE have yet to take a collaborative approach in resolving disputes, which is why government*

agencies should intervene in cases where public pressure mounts against specific development projects.

In summary, as most housing development projects are responsible for considerable environmental disruption, the level of the conflict regarding the initiation of such projects has increased. Public protests are also fuelled by the fact that developers are not obliged to consult local residents at the outset of the project or to offer any formal statement indicating that such projects will soon get underway. This in particular, has been acknowledged as a significant limitation of the current EIA framework (Tongcompu & Harvey, 1994; IPPS, 1993). Next section explores the impacts of EIA on new-housing development from micro to macro scales.

6.4 EIA Impact Assessment (From Micro to Macro Scales)

EIA also represents policies that are considered the independent variables in the assessment of public policy impacts. The dependent variables are therefore the cultural, economic, social and political impacts of these policies. Public policy results in impacts, which can be thought of as consequences or outcomes (Dye, 2014). A policy impact is considered an evaluation of how effective either a national incentive has been in achieving its policy goals or multiple objectives in fulfilling collective interests (Wholey, 1970). Others define policy impact in terms of the official objectives of a policy or program. However, the objectives of a policy are not always clear. Additionally, it is not uncommon for policies and programs to have the opposite objectives to one another. Therefore, in this study, the ability to meet these objectives is not considered the only form of policy evaluation. The policy impact, as proposed by Dye (2014), is explored.

It is maintained in this study that policy impact represents the ways in which policy influences the actual world. This can include direct impacts on specific groups associated with the policy, or spillover effects on other groups or settings (Dye, 2014). Dye (2014) also suggests impacts such as opportunity loss and other indirect costs, resource consumption and other direct costs, and both short-term and long-term consequences. In this study, housing developers subject to EIA are chosen as the target group. The purpose of this exploration is to understand what the implementation of EIA is meant to achieve. Thus, the study asks whether EIA is designed to influence developers' behaviour, interest, awareness, attitudes or knowledge. The study also asks how impacts are prioritised in terms of importance if EIA is designed to have numerous influences. Finally, the study explores any potential side-effects that developers experience that do not form part of the main objectives of EIA (Dye, 2014, p.70).

In Thailand's rapidly growing economy where new housing development is a major force in the transformation of its cities, the relationship between new housing, environmental quality and economic progress is especially critical. Carmona et al. (2003) assert that standardisation is considered a logical reaction to the numerous sources of uncertainty and risk that developers must deal with. These include fluctuations in labour and material costs and availability, fluctuating access to funding for buyers and construction companies, delays in construction and project completion, market volatility, changes in the cost of land, sudden shifts in demand, among others (Carmona et al., 2003). Since it is challenging to adjust to major changes that occur during production, and because the housing development process itself has permanent

consequences and takes a significant amount of time to implement, this causes greater uncertainty (Carmona et al., 2003).

In Thailand, EIA determines the possible scale of the impact a project and/or its construction may bring on both the natural and social settings. Developers are to abide by Sections 46-48 and 51 of NEQA 1992. The Thai government aims that such regulations will minimise any further future environmental damage to its rapidly altered landscape. Some developers have not taken to these guidelines well, claiming such protocol to be damaging to their businesses. Additional bodies such as ONEP and MONRE have aided in this blanket coverage having released statements that ban the transaction of properties constructed without compliance to EIA rules or those where environmental considerations have been evaded completely (ONEP, 2012). In Bangkok, thus, EIA regulations, together with building control and city planning regulations have an effect on new-housing development. The impact of this is significant and widespread due to the aforementioned issues associated with EIA implementation. The following sections explore the ways in which EIA regulation impacts various aspects of development in Thailand.

6.4.1 EIA Impacts on Project Characteristics

EIA implementation has both direct and indirect impacts on new-housing development. Its indirect impact is through market processes by discouraging high density development in areas where planning constraints have ensured high land values, thereby increasing housing development costs and sale price. Its direct influence is via the market attempts to discourage dense developments in areas of increased value by withholding the relevant permissions and other similar constraints

(Adams et al., 2005). This section explores the ways in which EIA impacts project characteristics and density.

The Scale of Housing Projects

Condominium plans inclusive of more than 80 rooms, or whose potential site exceeds 10,000 square metres, must apply for EIA endorsement. They are therefore classed as larger-scale housing development proposals. Bartone (1991) has defined such large-scale undertakings as housing developments comprised of many units as part of a unified grouping on a selection of land. They may be smaller-scale subdivisions or even whole cities. EIA Policy restrictions impact heavily on housing developer decision-makings, whereby policies may shape dimensional considerations at the stages of conception, in an attempt to circumvent the need for an EIA inspection so that progress can begin faster and cheaper. This method however is inevitably unsustainable as the approach does not serve to best utilise the limited land and resources in a city (Adams et al., 2005).

Density

Many housing developers divide their proposed projects into phases, so as not to fall into the remit of the ONEP categorisation. It is often the case that developers adhere to lower limits; meaning that planning may go ahead for projects proposing less than 79 units. This is in accord with particular environmental regulations and means 'low-rise' projects which have a total of 9 floors or lower may go ahead. These scaled down endeavours may grow into a larger undertaking if placement density is high in

relation to average spacing, which, in the end, serves to put developers at greater risk of breaching environmental laws as less regulatory attention is afforded.

One big developer, big developer B, for example, owned a piece of land for the purpose of constructing a high-rise condominium. The neighbours complained that the proposed project would block out the sun and in response, the developer discussed the ERC twice although the project was not approved. Subsequently, the developer commenced the project all over again, reducing the height of the building as well as the project size.

Adams et al., (2005) propose that density is relational to greater sustainability. It is in the interest of developers for sites to contain as many viable housing units as possible so as to maximise company profit gain. Developers will obtain sites with preliminary proposals but may subsequently aim to elevate the unit numbers over the site. Rodphai (1986) observed that the increase in land costs forced developers to find a new way to make their projects financially feasible and thus decreased the size of the houses built. There are only so many units that can be placed on a given sight however, this is also capped by a developers desire to avoid encroachments into EIA regulatory limits. As big developer-K comments:

> *In many cases, designs must adhere to the preferences of the ERC regardless of whether or not they are beneficial design changes. Whilst the necessary knowledge and expertise is not found within the ERC, this is found amongst housing developers, who work with skilful architects and housing related experts. In some cases, designs are altered only to gain EIA approval.*

Height Limits

Development capacity is one of the main areas that EIA regulations can negatively impact. One of the main reasons, in the case of condominium developments, is height restriction. Other reasons include the requirement to ensure that on-site infrastructure exceeds what is actually needed for the development, as well as the requirements related to urban design. Per-unit costs and development capacity are both impacted by height restrictions. For instance, buildings can be no larger than 4,000 square meters, containing no more than 80 units, and no taller than 23 metres. Build areas can be no larger than 10,000 square metres. Naturally, the number of units that can be built within a single building will be determined by the height restriction associated with that building. Furthermore, each area in Bangkok may have a different height restriction and may face different impacts of this height restriction.

When a development is subject to a certain height limit, the design must be altered in order to reduce the number of units contained within the development if EIA approval is to be granted. Profitability is negatively impacted when developers attempt to achieve the same floor area whilst dealing with these restrictions. EIA has a particularly significant impact on developments in the CBD area, where both the economically ideal height and capacity cannot be achieved. Additionally, especially in the CBD area, limitations on the height and quantity of condominium buildings that can be developed on a given site lead to the cancelling of many developments during the feasibility evaluation stage. According to a Thai Condominium Association representative:

Height restrictions have been enforced with no regard for the feasibility of developments. In suburban areas, for instance, the ideal height of most developments will be 5-8 storeys, whilst urban condominium buildings will ideally have 20 or more storeys. By only enforcing these restrictions in favour of the preference for placing tall buildings in locations that will not overshadow local communities and residences, the real-world impact of building height is often overlooked.

Site Coverage and Green Area

Both the natural and surrounding environment, whether current or future, must be considered during the project planning and design stages. Golubchikov & Badyina (2012) suggest that creating plenty of green spaces in residential areas is one effective method for improving residents' quality of life, overall health, protecting local biodiversity and reducing environmental damage. In 2012, for example, the ERC, in addition to its regular green space requirement of 1 square metre. for every 1 tree, requested the inclusion of an additional tree in the same area, which is double the stipulated requirement. Developers were inconvenienced due to challenges in obtaining additional trees. In response to this culture of arbitrarily changing regulations, a Thai Housing Association representative comments that:

The EIA is an obstacle to housing project development, especially in the case where regulations were changed without prior notice. Therefore, projects that were submitted in compliance to previous regulations had to be retained and changed so that it is legitimate in accordance to the new law, resulting in processing delays.

These sentiments were also echoed by big developer K, who commenced a condominium development project in 2011, at a time when the EIA was amending its requirements regarding green space. Consequently, the developer had to amend and relaunch the development design. The original design included 220 units ranging from 38 to 65 square metre at a cost of £2,200 per square metre. The finalised design, however, included 320 units ranging from 31 to 55 square metre at a cost of £2,460 per square metre. According to developer K, land prices on Surasak Road, in the CBD area, were £125,000 per square metre in 2011 and £250,000 in 2013, thus, all construction projects carried out during this time lost their proposed profits. Developer K points out that it is difficult to comply with green requirements since condominium developments are not subject to any standardised criteria:

> *Green areas within the building are not counted under the new requirement. Whilst the original design included green space inside the actual building, the new requirement only counts outdoor space. The developer consequently refunded customers' booking money with interest once it had sold 30 percent of the development and realised the EIA report had to be amended. Once the redesign was approved, the developer increased prices according to the market rate, and had to sell less space to customers.*

However, later this green space requirement was annulled because there was a shuffle in the members of the ERC ordered by the National Environmental Board (NEB) and the new board complained about the inappropriateness of the tree policy from the previous committees.

Overall, it is understood that development capacity is negatively impacted by the EIA. This is mostly down to building density issues and height restrictions in the case of condominium building developments. It has been found that when housing stock decreases, prices rise in order to achieve balance between supply and demand (Grimes & Hyland, 2014). Housing supply is capped by capacity limitations, delays and uncertainties, which results in higher housing prices. Developers also feel that innovation is lost through the enforcement of EIA, since it is more difficult to get a unique high-density, low-site coverage ratio and high-green space development approved than it is to construct a standard infill development. Furthermore, developers indicate that development costs can increase as a result of the requirements regarding green space and site coverage.

6.4.2 EIA Impacts on Operational Characteristics

Project Site and Location

The proliferation of mass transit networks in Bangkok and the concomitant increase in traffic density has instigated lifestyle changes in Bangkok. Many of the city's residents now choose to reside in the city because of the proximity to networks such as BTS, MRT, or ARL. Hence, proximity to a mass transit station has become a crucial determinant of property investment (CBRE, 2014).

Most urban workers in Bangkok are based in the CBD area, meaning that the surrounding areas are popular for commuters. Nevertheless, O'Sullivan (2007, p.119-122) points out that bid rent for land parcels increase as the proximity to CBD decreases. Therefore, residents who wish to have low-to-no transportation costs must

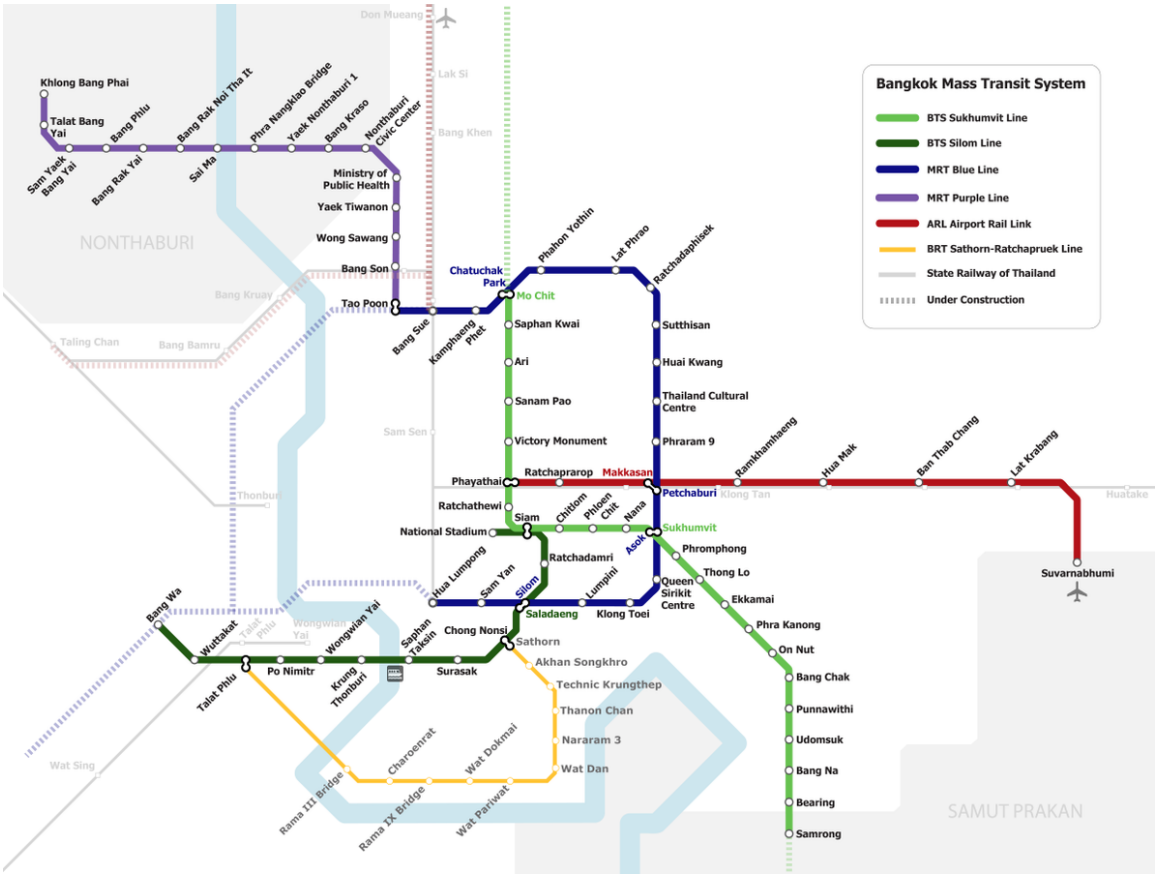
pay more to live closer to the CBD. Celik &Yankaya (2006) explain, however, that many workers are more concerned with how long it takes them to get to the CBD than how far away they live. Notably, some areas a little further out actually offer shorter journey times than areas closer to the CBD. It is for this reason that many workers choose to live in locations that have good road or main public transport connections. As a Thai Condominium Association representative notes:

> *The location of mass transit systems is very important for the location of residential properties in Bangkok. The decisions of many people, with regards to where they live and work, is determined by this. Indeed, the demand for high-rise condominiums is largely determined by the number of people using the mass transit system.*

Choiejit &Teungfung (2005) note that high-rise condominium projects have been carried out in these locations for many years. Chalermpong (2007) notes that this raises the cost of developments that are built along these transportation lines and shows that property value does in fact increase when it is situated close to a nearby train station both MRT and BTS.

Notably, research by Celik & Yankaya (2006) has shown that the price of property increases by an estimated £7.5 per every meter closer to a rail station. Thus a property located next to a station is £7500 more expensive than a similar property 1km away from it (Celik & Yankaya, 2006).

Figure 29 Mass Transit Lines in Operation and Under Construction (2016)



Source: OTP (2016)

As shown in Figure 30, areas such as Sukhumvit Road (on the BTS Skytrain Suhumvit Line), the Sathon District and Silom Road (on the MRT and BTS Silom Line) are notoriously expensive to live in. At present, EIA regulations impact developments on 'Soi' sub-streets, limiting them to 8-storeys or 23 meters. Therefore, many developers have decided to focus on the emerging CBD areas of Ratch-Rama IV, the Thonburi District, or surrounding provinces (AREA, 2015). EIA restrictions have a negative impact on the density of development projects in these locations as discussed earlier and as encapsulated in the views below:

In the past years, there has been a rise in the demand for condominiums in close proximity to the main public transport lines, particularly the BTS and MRT stations. This has caused us to shift our focus from developing horizontal housing marketing strategies towards high-rise building developments, particularly condominiums. The main motive is to generate higher profit margins, although this alteration would in fact be more time consuming. (Big developer G, 2014)

In order to maximise business profits, it is also important to develop such projects under the shortest time periods, because time consumed in construction and project development is not fully controlled, the costs of having to pay loan interests can be devastating to the developer…Loan repayments are considered as expensive within the current economy, where interest rates are high. At present, the MLR is 7.5 percent, meaning that developers will have an increased burden in repaying the associated interest rates. This predicament forces developers to hastily complete their projects, and one of the strategies they use to accomplish this goal is to obtain the EIA approval and building permits as soon as they begin their development project and control their initial budget thresholds. (Big developer H, 2014)

Project Duration

Grimes &Mitchell (2015) point out that the planning and resource management activities carried out between the land purchase and development stage are influenced by both the size and nature of the housing development itself. Developers cannot gain EIA approval without consent from numerous sources. Consequently, developers can incur additional costs, and this can also take some time to achieve. The time it takes can depend on factors such as the development's scale and size, the planned land usage, the compatibility between current planning rules and the development plans, the degree to which the development will differ from the surrounding developments

(i.e. in terms of density, aesthetics, land use, amongst other considerations), the quality of the EIS report, and the extent to which the ERC agrees with the developer's proposal and EIS report (Grimes & Mitchell, 2015).

The country's exponentially booming condominium sites, particularly within and around Bangkok, have seen the failure of a number of proposals to gain the EIA permissions to proceed. Issues resulting in delays and cancellations have become much more pressing over time, meaning that obstacles such as the redesigning of entire proposals emerge. As such, opportunities for business and lucrative revenue predictions are hindered. A number of large-scale housing projects have been delayed or have even experienced total shutdowns. According to an EIA consultant, due to the shortfall in ONEP staff, in one EIA approval meeting, ERC is able to consider only at most about 10 projects. Approximately less than a half of these get approved. In one year only 1,500 projects can pass this evaluation. This number is too low for a rapidly growing country like Thailand.

Developers feel that greater uncertainty and delays are encountered in the building approval and resource consent process, due to the length of the EIA process and the type of interaction that occurs between developers, ONEP officials and related agencies. This can bring serious and additional delays and costs to development projects. Developers and responsible agencies highlight the uncertainty in the duration of the EIA approval process as a key area of inefficiency as well as a hindrance to the success of housing development projects especially in times when the economy is achieving rapid growth. Consequently, many developers are cautious about effective EIA implementation.

Development Cost and Housing Prices

Costs arising from uncertainty, delays, regulations and overall development costs directly impact housing prices. Grimes & Mitchell (2015) also add costs such as financial costs, delay-related costs, uncertainty-related costs, regulatory costs, opportunity costs, as well as construction and land costs. It is only if the predicted market price of a development is higher than the overall cost of the development that a project will go ahead. Given this, feasible projects can be cancelled purely as a result of council-related costs. Grimes & Mitchell (2015) also assert that a development becomes less likely to be carried out when uncertainty increases, and this uncertainty is influenced by the length of delays and the certainty of receiving approval. As big developer E noted during an interview, "the EIA approval process averages between 10 and 12 months which adds to the financing costs of projects."

As a case in point, the cost of new condominium developments in CBD along the Sukhumvit Road soared to £4,000 per square metre in 2012 (Bangkok Post, 2012) due to EIA regulations, planning requirements and an increase in asking prices. Other reports also note EIA requirements as a major reason for increased development costs (Century 21, 2012). The views of interviewees below, echo these assertions:

> *In the past, it was only if developers sold land and purchased a plot contract that an EIA report was necessary. However, developers are now required to provide a title deed when submitting the report. Therefore, development costs rise significantly, since developers that used to only have to put down a 10 percent deposit on land are now forced to purchase the land outright. Additionally, developers may then spend as many as six months or longer going through the EIA approval process. (Big developer H, 2014)*

> *When the EIA is incorporated into medium to low-end housing projects, it leads to exacerbations in price rendering them unaffordable to the medium-to-low income buyers. Since the EIA has an impact on development cost, the sale price per unit will increase accordingly. (Big developer H, 2014)*

Numerous developers, moreover, felt that infrastructure criteria has led to greater costs for the developer since they lack innovation and have been designed too extensively. Developers shared their opinions regarding the way in which their proposals had been affected by the ERC, with many feeling that the ERC blocked innovation and market success whilst lacking the necessary experience. Big developer K comments that " the ERC has caused us to incur additional costs and delays by making the units less sellable, forcing us to submit numerous redesigns, and by enforcing urban design requirements."

Overall, the development costs are increased as a result of the influence of EIA in urban design, partly because of the requirement for design alterations. The ERC has been shown to add value in most cases, but not when requirements are enforced regardless of whether or not this is best for the specific development in question. It is evident that the EIA approval process incurs a high level of unplanned costs for developers. Consequently, developers increase their sale prices in order to achieve a reasonable return. Therefore, it is logical to argue that EIA does impact various elements of development as well as housing prices.

Carmona et al., (2003) assert that the time taken to make decisions will always result in a development cost being incurred for as long as the planning system exists. They also point out that delays become increasingly unavoidable as democracy within the

system increases. Given this, some propose economic competitiveness and market operations are limited by planning delays (Carmona et al., 2003). On the other hand, some suggest that democracy is a longer process by nature (Anon, 2001), but is still necessary. Carmona et al., (2003) also assert that it is necessary to make sure that the right decisions are made to begin with, since development impacts have an effect on the society and environment for many years after the completion of the project. Additionally, it is also argued that in the pursuit of democracy, delays are to be expected, and that delays should be valued as the necessary pathway to achieving development that has a more positive impact on the environment and that is of better quality overall (Dorby, 1975).

6.4.3 EIA Impacts on Home Buyers and Investors

Buyers can purchase condominiums from developers even if the projects do not receive EIA approval during the development stage. A growing proportion of Thailand's condominium development projects have faced redesign after being placed on the market due to a lack of EIA approval. Consequently, developers are forced to refund customers' money and contend with both delays and the risk of complete project cancellation. House buyers and investors in Thailand may be severely impacted by the delay and cancellation of housing development projects in which they have invested, due to EIA rejection.

Developers failing to obtain the relevant permissions have no choice but to halt any further progress. The developer is required to return any payments with interest in accordance with the contract of sale when they fail to obtain EIA permissions for a prospective residential project once sales have begun. Buyers will have security

payments refunded but with likely delays. According to AREA (2013), this is presently a persistent nationwide issue in Thailand whereby several condominium projects have failed EIA stipulations. Furthermore, buyers may not have the right to transfer ownership if the condominium they purchased was not developed with EIA approval. According to an ONEP report (2016), this happened in a number of cases between 2010 and 2015. These projects can be found around Sukhumvit, Ladprao, and Phaholyothin as well as other parts of the CDB area of Bangkok. Some developers, for example, have attempted to get around the need for EIA approval by submitting proposals for developments with 80 units or less, then dividing some of these units to create more units after construction. This has a serious impact for buyers, who may not be able to transfer ownership under EIA rules, according to ONEP.

Due to the challenges experienced by off-plan buyers in reselling their properties or even experienced by developers in cases where buyers are unwilling to complete payment as described in the previous section, there is a high risk of purchasers' default. In response, amendments to the existing Condominium Act were made in 2008 with the objective of instilling more confidence in buyers and safeguarding against fraudulent activities by developers (Global Property Guide, 2010). Other forms of regulation for these safeguarding purposes include the Escrow Act, which protects buyers from losses in the case of delayed and cancelled projects, and the Consumer Case Procedure Act, which permits buyers to leverage advertisement to hold developers accountable for any services not rendered upon completion (Global Property Guide, 2010).

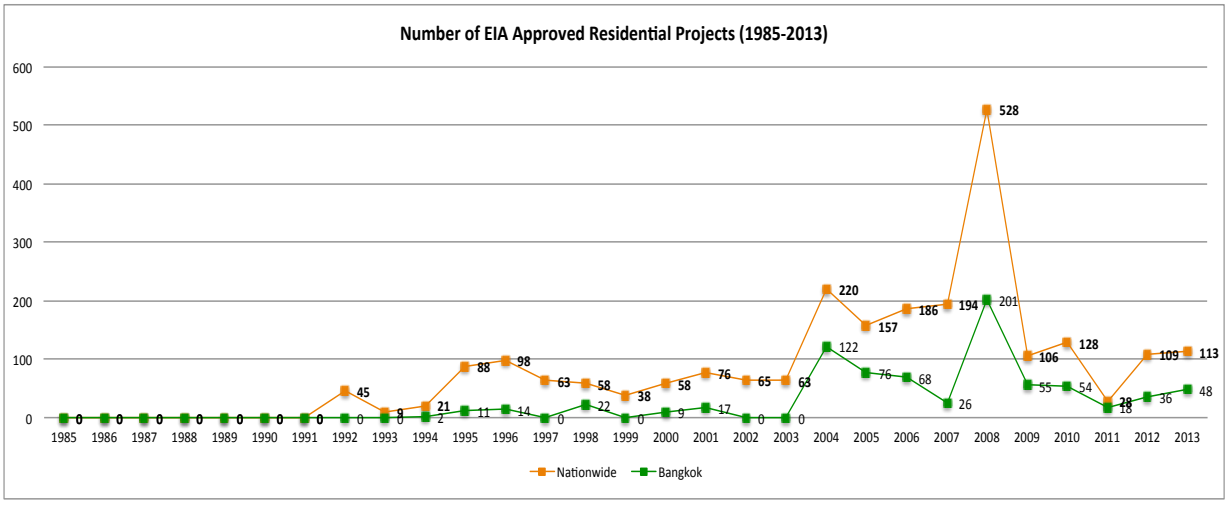
6.4.4 EIA Impacts on Community and Urban Pattern

Number of Housing

Figure 31 shows the EIA approval volumes from 1985 to 2013. There is a tendency for difficulties in attaining permission to build for condominium projects due to EIA provisions (Katharangsiporn, 2013). These undertakings suffer not only schedule setbacks or constant modifications, but may never be fulfilled at all. As small developer D comments: “investments in high-rise building development projects have a lot of legal requirements and budget control. Those constraints mean that it remains difficult to invest in such projects.”

As of 2014, new proposals have reduced in number by nearly a fifth in comparison to 2013 figures as observed by an AREA (2015) survey. 350 housing/condominium plans consisting of almost 100,000 units were submitted in Bangkok and the surrounding area in 2014, the previous year's figures reached 394 and 110,000, respectively (see Figure 31). Of the nearly 400 projects, condominium developments totalled 132, shrinking by a quarter from the 2013 figures, at 178. This decline has been ascribed to Thailand's uneasy political climate, whereby customers have been postponing plans to buy. Over half of condominium projects are classed as small scale due to their exempt status from EIA standards. Approval is not required.

Figure 30 Number of EIA Approved Residential Projects (1985-2013)



Source: ONEP (2015)

AREA (2013) reports that during the first six months of 2013, a total of 89 housing projects (representing 18,404 units valued at a total of Bt45.81 billion) were either cancelled or put on hold in Bangkok (see Table 19). The main reason for this was that developers were unable to secure funding from commercial banks. Another reason was that sales fell below developers' expectations. Of these units, 47 percent (8,567) were condominium buildings that were mid-development; 25 percent (4,598) were detached houses, and 13 percent (2,414) were townhouses. Of these developments, 9 projects were unsuccessful in achieving EIA approval. It is also reported that of the 300 projects planned in 2012, only 98 achieved EIA approval which is only 33 percent of total proposed projects (Global Property Guide, 2012).

Developers' difficulty in securing EIA approval is found in an increasing number of condominium development projects across Thailand despite this sector growing rapidly over the last number of years. The high proportion of project cancellations and delays only serves to reflect the degree to which the Thai housing market, and housing stock, is partially impacted by the EIA.

Table 19 Residential Projects Statistics in Bangkok (2013 & 2015)

Reasons/Year	2013	2015
Housing developers suspended or cancelled the development	89 projects	129 projects
Total Number of residential units failed to develop	18,404 units	34,038 units
Number of condominium units failed to develop	8,567 of the units (47 percent of total)	20,067 of the units (59 percent of total)
Commercial banks rejected applications for project financing	30 projects	37 projects
Sales failed to live up to expectations	21 projects	23 projects
Failed to gain EIA permits	16 projects	29 projects
Designs needed to be changed	8	10
Put on hold as the developers considered increasing sale prices	7	8
Projects were suspended or cancelled after the severe flooding in late 2011	5	N/A
Problems over land-used or the project design	3	3
Location	N/A	15
Change from for sale to for rent	N/A	2
Lack of contractor	N/A	2

Source: AREA (2013, 2015)

Land–Use and Land Price

The housing market is significantly influenced by land price in a number of different ways. Firstly, as Hara et al. (2010) explain, cities are constantly growing in size due to developers' need to purchase low-cost land in up-and-coming areas on the outskirts of the city. This situation has arisen as a result of land becoming increasingly desirable, with many individuals keen to purchase land and build upon it. Land with good potential includes land that is close to main transportation or other venues or facilities

links and projects. Secondly, land use is highly concentrated in Sukhumwit, Satorn, Asoke, Silom, and other parts of central Bangkok. This is because the private sector and government sector split land based on their respective needs. As Jones (2005) explains, this also has an impact on the cost of land in areas that neighbour the CBD area. Land costs typically account for 15 percent of all condominium building development costs, or as much as 25 percent if the development site is in a popular location (JLL, 2015). Developers' concerns are that the rising land prices and subsequently rising unit prices, could turn some buyers towards more affordable units in older buildings (Thai Nation, 2015).

The EIA influences developers' decision-making, in terms of size and locality of the project. This means that the limited area of land available for construction in central Bangkok is not effectively utilised. Consequently, this leads to expansion into peri-urban areas in the midst of increasing land prices. From 2014 statistics, the average price is approximately £4,000 per square metre, which rises to approximately £6,000 per square metre in 2015. The EIA thus inadvertently affects the development of residential areas in a way that makes the size sub-optimal, limiting the number of constructions within the viable land area, particularly in the CBD. This leads to higher residential unit prices. As an example, the Floor Area Ratio (FAR) of Sukhumvit Road changed from 10-1 to 5-1 (Manager, 2012), leading to more difficulties in building high-rise condominiums. The fact that fewer units can be included within development projects culminates in higher sale prices, making units affordable to only people who have high-incomes. This situation instigates conflict between central environmental agencies and local government bodies, because the BMA City Plan aims to facilitate lower commute distance for the working class.

The developers in Bangkok develop housing projects which are located near other large-scale programs, for example, zones near and around the major public transportation (MRT and BTS), or CBD. The developers mainly select the site by reviewing the government's development projects such as public transportation systems or investments in industrial estates. For high-rise development, encountering the environmental board is unavoidable because it is mandatory to acquire EIA approval. Therefore, they may have to adapt and change their plan to adhere to the ERC's opinion. A Thai Condominium Association representative comments that:

> *It is difficult to achieve large-scale housing development in Bangkok's urban areas, since this calls for greater land access, resources, roads, electricity, gas, water and other infrastructure. Furthermore, if housing is spread across different areas, this leads to a breakdown of urban hubs and communities which consequently causes urban sprawl.*

6.4.5 EIA Impacts on Macro Scale

The macro economy, which incorporates labour mobility, house price impact, and investment in infrastructure – is closely related to the housing market. Consequently, attempts have been made numerous times to improve the macro economy through housing. The housing sector has experienced both the benefits and disadvantages of policy integration. The new-housing development projects have significantly managed to encourage the country's economic growth and boost industry whilst also acting in accordance with EIA regulation. The ineffective implementation of EIA could eventually affect national competitiveness and the economic system (Beierle, 2001; Trethanya & Perera, 2008).

This effort can be successful, since the national economy is supported by the housing industry in a number of ways (UN-HABITAT, 2012). For instance, housing constructing and the housing markets both have the ability to catalyse economic growth. Economic growth can also be improved when housing developments lead to an improvement in living conditions, labour productivity and health. The housing industry contributes to the growth of gross capital stock's capital assets, whilst also contributing to the growth, development and regeneration of cities and regions (UN-HABITAT, 2012). Furthermore, the housing sector supports individual affluence through the housing markets, whilst also contributing to government wealth through taxes. The housing sector also stimulates activity in other sectors whilst providing employment opportunities for construction workers (UN-HABITAT, 2012). Additionally, the housing industry enhances the application of traditional construction methods and local materials whilst supporting local businesses and industries. Moreover, the existence of institutions that provide financing for housing has a positive impact on the mobilisation of domestic finance. Finally, the housing industry has the ability to increase revenue by encouraging buy-to-let activity, home-based businesses and by increasing collateral for small and start-up businesses (UN-HABITAT, 2012).

Without proper planning and EIA implementation, the policy obstructs the industry's growth and affects the country's economy as a whole. The overall economic condition of the development area and of the country plays an important role in the decision to undertake a project, in addition to societal and environmental considerations. This is not the case for low-rise condominium developments, which are not tied to the overall national economic condition; there is a more realistic demand in horizontal projects as

compared to vertical ones. Vertical developments highly depend on economic conditions – that is if economic conditions are good, then demand and sales will be high. Horizontal housing development has been barely affected by economic conditions except for the year 2011, during the big flood.

Since EIA restriction has impacted on housing development projects. The current criteria tends to fluctuate rendering it difficult for housing developers. Also, all EIA approval is centralised in the ONEB office and a Thai Housing Association representative comments that:

> *Only 30 percent of proposed projects were approved each year, making the country fall behind other countries in real estate development which affects other economic sectors…EIA makes the country's housing developments fall behind the other neighbouring countries. Thailand was in close competition with Malaysia but the country's housing market is now lagging behind them and this is not even mentioning Singapore, Indonesia and the Philippines. Thailand is falling behind. Other countries also have EIA but unlike Thailand, their EIA has much clearer criteria.*

Moreover, EIA approval affects the country economically. Many mega-housing development projects have been suspended as they await EIA approval, causing a lag in expected growth. The Mahanakorn project, for example, would greatly raise the value of the vicinity around the project. Also, there is The Super Tower project by G Land which when completed will become the tallest building in the ASEAN region. This proposed project raised the prices of land nearby by 10-20 percent. However, the project still remains in the EIA approval process. Indeed, big developer H opines, "the bigger the project, the stricter the committees."

The ERC definitely scrutinises such projects and because of their size, there are public hearings and an environmental survey of the whole of Bangkok. In the case of the Mahanakorn project, it has already been six years and there has been minimal progress. A Thai Housing Association representative comments that "the EIA procedures are not flexible enough for the developers."

6.5 Conclusion

In cases where extensive development work has compromised the well-being of the local community and the natural environment, conflict often arises between the various stakeholders. The conflicts often generate considerable contention in the community along with inadequate EIA regulation and ineffective EIA implementation. These complex issues impact housing development projects in many ways such as mass suspension, cancellation, and increasing development cost. Developers are forced to amend project proposals, meaning time is squandered, revenue projections are unattained and opportunities to grow a business are compromised. Failure to meet EIA stipulations creates frustration for not only housing developers but buyers. Stakeholders such as contractors and financial institutions are also affected.

CHAPTER 7 THE RESPONSES OF HOUSING DEVELOPERS

7.1 Introduction

The previous chapter provided an analysis of the impact of EIA implementation on new-housing development, other aspects of society, individuals and groups. An analysis of how individual developers have reacted to EIA procedures is the main focus of this chapter. In this chapter, the responses and perceptions of developers with regard to new EIA regulations are examined. The chapter investigates whether developers are constructing smaller units to circumvent the law or whether they have campaigned against policy in order to reduce the severity of its impact. It is also determined if EIA regulations have changed the behaviour of the firms. The impact of EIA provisions on the firms who may focus on smaller construction projects in order to circumvent the new policy is further critically analysed. The behaviour and attitude of builders, in terms of the actions they take and the measures they implement to pressurise government workers into reducing the severity of EIA regulations is discussed.

7.2 Housing Developers' Business Strategies

This delineates the corporate strategies of housing developers in the context of the rising importance of environmental concerns across a diverse range of sectors, and the heavy influence of the environment and governance structures on business activity. A private sector that is subject to environmental pressure, frequently implements drastic new strategies (Levy & Newell, 2005). The strategies are determined based on the subjective interpretation of interests within institutional contexts as opposed to a set

number of objective interests. Thus, they can easily be affected by national and industry-related factors (Levy & Newell, 2005).

Grimes & Mitchell (2015) in their analysis of housing development provide two types of business models – complying and non-complying. The types of strategies used vary considerably based on the business strategies of the housing developer. Those who are 'complying' generally acquire conditional control over a site and invite the participation of local councils in generating a design, estimating costs, calculating margins and predicting the demand for units considering existing market conditions. If these feasibility studies generate positive results, the developers continue with the project. However, if the feasibility studies are unfavourable, they abandon the project entirely (Grimes & Mitchell, 2015). On the other hand, those who are 'non-complying' implement a more forceful strategy in acquiring consent as they generate a content application under the assumption that they will likely have to defend it in court. Nonetheless, their decision to continue with the project will depend on the outcome of risk-adjusted return predictions and market analysis in the event that the application is indeed granted by the Expert Review Committee (ERC) (Grimes & Mitchell, 2015).

The business strategy employed also affects the duration of the EIA application process and developers who are compliant will make every effort to prevent delays. Thus, this may incur costs due to the need to include the criteria of all state requirements. This may also jeopardise the market value of the end result. On the contrary, non-complying developers are willing to extend the application process despite the risk of an uncertain outcome as they are generally affluent enough to pay for the immediate development costs for years. Based on the developments studied as

part of this project, many have experienced changes in the management structure due to such significant delays and setbacks in the application process, many of which are not caused by state agencies. When housing developers in Bangkok decide to purchase land for a condominium project, they risk having their EIA application approved, delayed, or denied, as the approval process is largely dependent on the ERC. As a Thai Condominium Association representative posits " currently when we decide to buy a plot of undeveloped land for a new condominium project, we have to bear the risk if the project cannot win EIA approval. The approval process relies heavily on the judgement of members of the expert panel Committee."

Broadly speaking, developers attempt to acquire control over a potential development site once they have purchased high-level feasibility land in advance. This process identifies the overall development prospects of the designated site. The adoption of the filtering technique also lowers the likelihood of developers terminating projects unexpectedly. EIA policies along with the manner in which they are implemented by ONEP and BMA increase the costs of development projects as well as the uncertainty associated with potential housing projects. Additionally, EIA policies lower the development capacity of many ventures. The primary aims of the EIA appear to be hindered by policies that lower the development capacity of development projects, particularly on account of limits imposed on building height, floor area, green area, density, style of dwelling, and developing location (discussed in chapter 6). In addition, it is often argued by developers that the EIA is overly focused on the needs of local residents. Instead, they suggest that the EIA places emphasis on the overall benefits of a project as opposed to its impact on a select number of people.

Big and Small Developers' Strategies

Due to competition in the market, big- and small-developers must compete with each other to gain a significant market share through good strategies and the provision of high-quality homes (Pornchokchai, 2002). According to CBRE (2012), via good branding, big developers are able to sell their properties at a faster rate when compared to small developers. Further, big developers are often able to attain favourable interest rates from banks (CBRE, 2012) particularly as they possess larger borrowing power when compared to their smaller counterparts. They are able to establish strategic partnerships with other big companies to strengthen their financial position and thus gain access to funding that small companies cannot access. Needless to say, they dominate the market (Golland & Blake, 2004). For the small developer, many companies are family firms with only one or a few projects. Inexperienced developers had challenges in obtaining project loans from commercial banks, although the subsidiary finance companies of such banks, took such clients on board (Foo, 1990). Equity would come from the sale of family assets or from the profits of another of the family's companies. A Thai Condominium Association representative echoes this perspective:

> *Not only are large developers capturing the market, they are also competing directly with small firms. In prime locations such as those in proximity to the main transit link, the BTS Skytrain, there is increasing competition because of the high demand for condominiums in these locations. Thus, there is essentially a bidding war between small developers and big developers who have the financial strength to outbid their competitors.*

There are repercussions for developers of all scales, when they undertake urban regeneration and new-housing schemes. Small firms will find it challenging to take part in these activities as greater levels of funding will be necessary in advance, due to the fact that EIA must be approved prior to any sales revenue being created (Golland & Blake, 2004). According to a Thai Condominium Association representative:

> *The imposition of the new EIA rules by the ministry would reduce the number of sales launches for projects exceeding 250 acres of land. Since developers must ensure the environmental assessment process before the start of construction, this might present challenges and financial problems for small developers.*

These small firms have difficulty when it comes to handling unpredicted costs, thus limiting the opportunities these companies have. Greater competition in locations near major transit lines and EIA challenges mean that small to medium developers must look into alternative market opportunities (Golland & Blake, 2004).

For small housing developers, EIA approval is extremely sensitive. When the country has faced many serious problems in the housing sector, pressure has amassed from slow economic improvement. Small developer C is of the view that "big companies have access to funds via the bond market, where they are able to attain a coupon rate of 5 percent. Smaller firms do not have these resources; they must solely depend on bank loans and the minimum loan rate is currently at 7 percent per annum."

Frequent project suspension due to EIA disapproval and the subsequent financial distrust among banks has resulted in a quashing of lucrative action. More small and medium size housing developers often suffer the greatest as they are unable to secure

finance for projects in other ways, meaning they are forced to shut down, merge or endure severe loss (interview, small developer E, 2014). In 2014, for example, it was announced by a broker that more condominium developers have considered merging or co-build projects as a way to lessen the risk of failure to sell completed units. Developers are forced to these extreme tactics because they cannot always reach revenue targets alone in a struggling economy. Only if the economy improves may developers observe greater success for small to mid-range developers who have little choice but to undertake more secure but complex joint ventures. A financial institution explains:

> *Most of small and medium housing developers have launched the projects, but they cannot achieve their targets. When banks see these signs, they become much stricter about extending loans. When they lack financial liquidity, they have to sell their projects at a loss.*

Deal Street Asia (2015) claims that a total of 122 housing development projects were terminated in 2014, 50 percent of which were abandoned on account of financial issues. In 2013, only 21 projects were terminated, which indicates the severity of the trend. Many developers who wish to proceed with projects despite financial difficulties must look for funding from brokers, sell the project or establish joint ventures with other investors. Therefore, there are not so many new developers surviving in the industry. Most surviving developers are the big and experienced who have been in the business for a long time (interview, small developers, 2014). Small developer D explains that:

New or inexperienced small developers who want to endeavour in the housing industry would be unfamiliar with the EIA process. Their project schedule can easily go off the tracks. Besides, if the developers highly rely on a loan from financial institutions for the development projects, developers would be carrying the massive burden of the interest rates which begin since they acquire the land plot.

In summary, changes to the housing development industry have far reaching effects on the type and size of development companies that take on urban housing projects. It appears that smaller firms will find it increasingly difficult to secure development projects as many require extensive capital up front, as income cannot be generated until EIA approval is secured. In the current housing market, there is a high level of competition due to the lack of barriers to entry or exit. However, the condominium market in Bangkok is led by a number of major developers who have the majority market share. The next section focuses on the responses of developers to the EIA approval process, particularly in terms of its inherent subjectivity in its application as a means to achieve personal objectives over general compliance with relevant policies.

7.3 The Responses of Developers to the EIA Regulation

Several different business strategies implemented by developers in response to EIA enforcement are presented in this section, many of which could be linked to the builders' inherent business philosophy when managing uncertainty and risk in the housing development process.

7.3.1 Avoiding EIA

Developers have devised means of legally circumventing the EIA (Bangkok Post, 2009) in response to the delays that are concomitant with its application, and to avert financial losses due to these delays. As, big developer H notes:

> *The general solution for developers is to avoid EIA restrictions by reducing the size of the housing project, so that development can commence more quickly. This is possible if the total area of the establishment is reduced to fewer than 10,000 square metres or 80 units. What has been always practiced among developers is that they tend to split the housing project into smaller phases to avoid the categorisation as prescribed by the ONEP*

It was common prior to 2006 for developers to design their site plans in such a way as to indicate that there are less than 80 rooms, thus negating the need to complete an EIA report. This was often achieved by listing several bigger rooms that comprised the floor areas of a number of smaller units. This enabled the developer to submit a construction permit without delay and begin construction work without being obliged to pay rising interest rates as they await EIA approval. Developers can then generate an EIA report that offers a more honest account of how many rooms the project will contain, once the construction process has begun. After approval, the developer can then submit a revised application for the construction permit and does not break any laws in doing do. Moreover, any developer planning a condominium project containing at least 79 rooms must generate an EIA before beginning construction work, although several developers have employed clause 39 of the Building Control Act to directly begin construction work before the EIA approves the project. In 2007, the National Environment Board sought to put an end to this practice by amending

EIA regulations and increasing the overall effectiveness of EIA policies. These issues have been addressed as ONEP no longer processes EIAs that are submitted following the initiation of building work. In fact, in 2007, 100 separate projects were terminated due to the developer's misuse of the clause 39 loophole (interview, big developer H and small developer D & E, 2014). As a result, the protocol regarding the preparation and submission of EIA reports were strengthened as the criterion was extended to include floor area as well as number of rooms. This revision to the policy also limited the development of large-scale high rise buildings, irrespective of their purpose, by necessitating that EIA reports be generated for all buildings that exceed 23 metres or exceed a floor area of 10,000 square metre (Bangkok Post, 2009). In recent years, ONEP has been faced with an extensive backlog of EIAs, and the approval process commonly takes at least six to twelve months to complete. As such, developers must take time into consideration during future planning activities.

7.3.2 Adjusting Project Characteristics

Plenty of projects that operate within the medium-range market have avoided EIA approvals by reducing the project size to fewer than 10,000 square metres and/or 80 units. Due to the legal requirement that allows establishments under 80 units to avoid EIA approval, the speed of project development can be enhanced, which can introduce negative impacts that affect project residents and their neighbours (Manager, 2006). Most developers tend to maximise the size of their establishments (so that it is just under 10,000 square metres), therefore the environmental impacts are likely to be just slightly different.

It is unlikely for projects that are less expensive, which target middle class groups, to be constructed within the CBD or near the main BTS and MRT lines, mainly due to the financial constraints. For this reason, they tend to be located further away from these locations or towards suburban areas. Moreover, when considering legal regulations, EIA restrictions and risk distribution, most developers are encouraged to turn to horizontal housing marketing strategies in peri-urban areas (interview, big developers G, 2014). According to big developer C:

> *Some locations may no longer be available for the development of high-rise residences, or there could be limits on the number of units. Until then, we have to suspend land purchases in the central business districts, as there is a risk that we will not be allowed to develop condominium projects there…However, we have continued to buy land and launch residential projects, for both condominiums and detached housing in the suburbs, especially the areas located close to the mass-transit rail route.*

According to a REIC survey, the number of new project announcements in the category of housing and condominiums had dropped by 15 percent between November 2013 and 2014. The REIC claims that only 350 housing and condominium projects containing 94,200 units were announced in 2014 in Bangkok and surrounding regions, while 394 projects containing 110,000 units were announced in 2013 (REIC, 2015). In 2013, 132 of the 394 projects were condominium projects and this decreased by 25 percent in 2014. It has also been claimed by the REIC (2015) that 60 percent of condominium projects are now small in scale as developers wish to circumvent the prior EIA approval requirement by launching condominium projects that can be classified under housing.

7.3.3 Dividing up Projects

In cases where the EIA has not believed that developers can satisfy the housing demands of new buyers in only one phase of development, developers have divided their project into stages. This could possibly lead to a one-year delay in construction. Thus, to initiate a condominium project, developers begin by submitting an EIA application, which is more beneficial for the development company and its clientele. As an example, towards the end of 2013, big developer H submitted an EIA application for their condominium project but did not receive approval until one year later. As an EIA requirement result, the project was then divided from one phase containing 10,000 units to three separate phases containing 3,000, 3,000 and 3,500 units respectively (interview, big developer H, 2014). Big developer H further explains, “we had to divide up our project when the EIA committee did not believe that only one phase could provide the facilities to cover all of the homeowners' demand. That caused a delay in the launch of about one year from our business plan.”

In summary, it is common for the additional costs and time incurred to induce developers to pursue an alternative development type than the one originally planned. On the other hand, some developers simply terminate projects if the potential costs outweigh the anticipated market value of the outcome. In fact, all those questioned admitted that they had been forced to take this measure in the past due to the inherent uncertainty attached to the EIA process.

7.3.4 Increasing Sale Price and Changing Target Buyers

Since EIA increases development costs, many big developers change their company strategies to focus more on high-end condominium projects where they can increase sale prices and gain more profit. The high-end condominium projects in the CBD of Bangkok have increasingly been approved by ONEP, demonstrating a much higher trust and better relations in high-end markets of housing developers and government authorities. Such condominiums average a cost of £2,000 per square metre. Over 31,000 are located in the CBD according to 2014 figures. The market has soared in areas in the vicinity of MRT or the BTS Skytrain and have been expected to grow further due to rising development costs (The Nation, 2015).

7.3.5 Launching Project Sales & Marketing before Getting EIA Approved

An increasing number of projects have not received EIA approval even though they are being marketed and sold. The fact that many projects are negotiated and sold prior to EIA approvals poses a continual predicament for both developers and clients. This is usually the case because even if EIA has not yet been approved, the law does not block any transactions or business dealings regarding the land in question – the only restriction is that no construction can commence. Many projects thus start business dealings before the EIA is approved, a stage known as the 'presale period'. The price of the area during this period is usually lower than the subsequent period after which the EIA is approved. Moreover, the price will usually rise even further after the building project is fully completed. Many projects use the key aspect of passing the EIA approval as their selling point (we can clearly see this on advertisements that are quoted with the phrase "EIA approved"), since this increases the confidence of buyers

who will be more confident with the likelihood that there will be less environmental impacts associated with the land (Manager, 2006).

According to AREA (2011), approximately 197 condominium projects that were not yet approved by the EIA were sold during the presale period in 2010. The total value of these projects combine to approximately £800 million, in which 15 of the most expensive public company limited projects are currently valued at £460 million. The regulation, however, states that if any building project does not comply with EIA regulations, they will not be allowed to construct any buildings or issue any housing permissions. According to big developer B:

> *Our company encountered a number of problems when we did not manage to get an EIA permit for a high-rise condominium project at the first attempt. Once we had revised the project in line with the EIA report, we did secure the permit, but this lesson taught us not to start a new project without first making sure that the EIA permit is in place. Revising the project also cost us money*

In the case that there is opposition once the project has commenced, the development will have to stop immediately. This issue has become exacerbated in recent years and has led to the significant delay or complete termination of many projects. Developers have thus been required to refund booking fees and modify project designs, which cause a loss of income, time and valuable business opportunities. Now, developers wait for the EIA permit before launching condo projects. As an environmental authority senior bureaucrat explains:

Most of developers do not launch a residential project until they have been given an EIA permit, as they would run into even greater problems, and incur expenses if they decided to begin the project and subsequently discovered that the permit had not been granted.

7.3.6 Revising, Delaying, and Cancelling Project

EIA regulatory practices, which are related to concerns regarding consenting outcomes and delays in the consenting and development process, can help alleviate the possibility that a developer will undertake a project at the initial stage when they are considering to apply for consent or not, or after a successful consenting result. With the latter, the length of time taken to process the consent is correlated with the chances that market conditions will have undergone a change which negatively affects circumstances, meaning the project is rejected. This possibility increases based on the consenting timeframe and when the result is not certain (Grimes & Mitchell, 2015).

Any project that begins construction before an EIA is granted cannot be sold to prospective-buyers. Many prospective-buyers are left upset when the property they desire fails to be approved by the EIA and it can often take some time for booking deposits to be returned. A rising number of new condominium developments have been rejected by the EIA despite already being available on the market. Thus, developers must modify their designs and refund buyer deposits as they are unable to sell the properties. According to AREA (2015), only 98 projects of 301 undertaken in 2012 succeeded in securing EIA approval with nine development projects in Greater Bangkok cancelled or terminated within the first six months of 2015 on account of this trend (Global Property Guide, 2015). This issue can force the launch date of projects to be pushed back and many developers choose to terminate the project

instead. The Bangkok Post (2015) argues that this was also a prevalent issue in the past but has become more noticeable again recently, with the rapid growth of the condominium industry.

Despite already putting the condominiums up for sale on the market, big developer F was not granted EIA approval for two separate projects. Two of big developer F's projects had failed to secure EIA approval. The two rejected projects included an eight-storey building comprised of 400 units launched in 2012, and two eight-storey buildings comprised of 409 units launched in 2013. As a result, the company claims that it will refund all booking fees in addition to interest, as promised in the contractual agreement (interview, big developer F, 2014).

A condominium project by big developer K was relaunched in 2011 once the design plans were altered. The site comprises 319 units ranging between 31 and 55 square metres at a cost of £2,450 per square metre. The initial design plan contained 220 units ranging between 38 and 65 square metre at a cost of £2,200 per square metre. Big developer K admitted that the design plans were modified following changes to EIA green area requirements. These new criteria stipulate the amount of green area that must be provided outdoors but does not address indoor green areas, which the developer claims featured heavily in the initial design plans:

> *Our project was initiated during a change in the green area required in the EIA report. The new requirement for green areas does not cover green areas within the building. They must be outdoors, but our previous design also had indoor green space within the building. (Big developer K, 2014)*

The developer further notes:

> *Once the company was informed about the need to modify their designs, we refunded all buyer booking deposits with interest even though they had already sold 30 percent of the properties. The design plans were altered and the project had less space available for sale. Thus, we increased the price in line with current market trends. (Big developer K)*

Thus, both developers and buyers are negatively affected if a condominium project is rejected by the EIA, as are other key invested parties such as banks and contractors. Hence, many financial organisations are now stricter and require EIA approval before development loans are approved. Meanwhile, contractors have acquired greater power on account of a lack of skilled contractor labourers and thus choose projects that have received EIA approval or expect to receive approval. Developers have put forward the notion that delays and concerns related to EIA can lower profits stemming from the development. Sometimes, the added financial burden can mean developers replace a certain development type for the preferred option, while in other instances, they might reject a prospective development based on forecasted costs, delays and concerns. Specifically, numerous developers have said they gave up projects based on the forecasted project length and EIA concerns.

7.3.7 Launching Project Only after Passing EIA

> *Now, when our company launches condominium projects, we do not begin the sales until we have applied for an EIA permit and know that our application has been approved. This approach benefits both the developer and our customers. (Big developer H, 2014)*

> *My company will launch a new condominium project only if the project receives EIA approval. (Big developer A, 2014)*

As the sentiments of the respondents above show, many developers are now worried about the fact that the EIA is offering a limited number of approvals. Many developers delay the launch of their housing projects until approval is secured which will be more beneficial for the company in ensuring the trust of clientele**.** According to big developer I:

> *It was common for developers to start their marketing and advertise their projects soon after purchasing land and constructing a sales office. However, new EIA rules mean that developers now delay the launch process until they receive EIA approval, which can take more than 4-8 months.*

Big developers A and J have made similar arguments and revealed that their companies now wait for EIA approval before beginning construction. In 2013, big developer A had to relaunch a condominium project after EIA rejection meant design plans had to be modified. This project is situated in a region where high-rise buildings are not permitted, in the same location as the new parliament. The company also had to revise another condominium project in the CBD when it failed to secure EIA approval (interview, big developer, 2014).

Carmona et al., (2003) have stated that the practices of house builders are not under their control, as they are a result of the housing development itself and the marketing processes related to it. Essentially, this is due to the fact that housing is a unique type of consumer good, as housing 'has first of all a very high capital value', and the developer invests vast amounts of funds in the buying of land and materials.

Secondly, production time for housing far exceeds other consumer goods, and developers must attempt to reduce turnover time to the greatest extent, meaning that delays are expensive and, during recessions, the product is unable to be stored until the market circumstances improve, without incurring vast costs. (Booth, 1982, p.20–21). As a result, it is crucial for house builders that their creations are finished and sold in the shortest possible window. Thus, there are specific trusted and well-tested formulae regarding development practices which are used widely, in order to limit complications and which allow all necessary consents to be gathered as soon as possible (Beer & Booth, 1981).

7.3.8 Paying Compensation

Many developers have made their own solutions. The developers perceive that EIA to be about compensation. Many condominium projects have been disapproved because of environmental concerns and affected neighbours. Therefore, giving money, objects, or favours as compensation to local residents affected by the development project has become a norm or standard of sorts in Thailand (interview, big developer I, 2014). For example, with regard to sensitive areas such as schools, the developer must send an inquiry letter and meet the directors of the schools to ask if the project affects them in any particular way. Big developer I notes with reference to his experience of launching a construction site near a school:

> *When we build a building near a sensitive area, the developer must give something as a compensation to the affected parties. Even though, we realised that it does not solve the problem at the root, installing air-conditioners in schools is the solution…it has already become the norm in Thailand.*

Thus, the question is does it really help improve the environment? In response, big developer I asserts:

> *It definitely facilitates the development project and enables the continuity in the construction but the environment will not reap any benefit. Instead of finding a better solution, this has become the norm among the housing developers. When one developer uses this strategy, others will follow…it becomes a matter of negotiation with the affected parties…*
>
> *You caused me some inconvenience. What can you give me to compensate for that?*

The developers in Thailand have barely taken environmental concerns into account when establishing their strategy, which is primarily because of financial motivations behind these plans, through land ownership and feasibility studies.

In summary, Thailand integrates the EIA process differently when it comes to the new-housing development process. There should be a greater level of focus given to comprehending the effects of EIA on developers' decision-making. The housing developer is the first decision-maker in a housing project process, and the EIA should be a crucial component of their decision-making process, especially at the initial phases. EIA can help decision-making when examining potential project alternatives. In reality, EIA has not often been an important element for developers, since the latter usually goes ahead with a project through financial and technical feasibility findings instead of EIA findings. As a result, EIA is not important in the decision-making of the housing process, since developers employ EIA as a tool to gather project

permissions as opposed to a tool to limit the negative impacts their project has on the environment (interview, developers, 2014).

7.4 Evidence in Lobbying

This section explores the strategies of house-building companies with the view to gain nuanced insight into the lobbying activities of such companies, focusing particularly on their pressure groups due to their ability to influence policy significantly via the lobbying of senior politicians.

Wescott (2001) explains that throughout South East Asia, policy changes happen under two main paradigms. One is the common autocratic-paternalistic way of ruling, while the other is the paradigm of legitimate authority (Western model of rule of law and governance). Governments have allowed major businesses with significant influence to make private agreements with administrations (Wescott, 2001, p.43). Holcomb et al. (2012) claim that businesses are impacted significantly by public policy. They attempt to affect policy changes and governmental decision-making pertaining to public policy. Numerous different outlooks exist for businesses with regards to their links with the government (Holcomb et al., 2012). According to the Environmental Report 1997 (OEPP, 1998), Thailand has been a nation of low enforcement. The lack of policies, rules and organisations was ineffective (discussed in chapter 8). Because of vague legal authority in Thailand, Thai laws delegate significant power to executives through ministerial regulations, notifications and announcements, meaning that these individuals can create the rules themselves. In instances where they are not able to change a policy, they can affect those in charge of the regulation implementation. Overlapping legislation can stop an authority

implementing a specify policy if it goes against the wishes of other firms. Because of this, business firms in power most often build strong relationships with politicians in order to use the available bureaucratic influence in order to support their personal goals, regardless of the effect on the public or the environment. Langkarpint's (2003, p.1709) study shows that the Thai public sector demonstrates significant levels of corruption and corrupt officials, who make law enforcement and regulation extremely challenging to uphold (Delgado et al., 2003; Greenpeace Southeast Asia Foundation, 2004; Wildlife Fund Thailand, 2003).

In order to assess interest group influence, Dye (2014) claims that the power the interest groups hold in the government is not easily quantified because of several reasons. Firstly, political views can align with those of the interest groups, regardless of any lobbying they do. Secondly, interest groups primarily affect the initial phases of setting legislation, involving behind-the-scenes negotiations for certain provisions and the drafting of amendments. Thirdly, interest group lobbying is considered to be most influential when it comes to specific legislation details, rather than the general political direction. Lastly, the politicians themselves have personal views which might be influenced by interest group activities. Western countries, however, differ in that the majority of political activities occur at the input (policy making) stage whereas in developing countries, the output (implementation) stage of the political process involves significant individual and collective lobbying, representation of interests and the rise and resolution of conflicts (Wescott, 2001). In this section, the formal and informal negotiations between governmental agencies and the private sector have been observed in the process of EIA policy formulation and implementation in Thailand.

7.4.1 Formal Negotiation

> *"The association has written to the Minister of Natural Resources and Environment requesting for a less stringent approach towards EIA requirements as the sector is already experiencing difficulties because of the economic slump." (Thai Condominium Association representative, 2014)*

EIA & new Bangkok's City Plan

When the incorporation of EIA into the new BMA city planning law, which includes land-use restrictions, does not align with the growth of urban areas particularly those in the CBD, buildings projects are not developed to their capacity and profit maximisation is not achieved (Interview, Thai Condominium Association representative, 2014). Therefore, developers have requested a 40 percent increase in construction areas to the BMA, so that the benefits of land-use can be enhanced. Since many of those who previously inhabited the area have contributed towards the new Bangkok city plan, it is normally assumed that they generally do not favour the explosion of new high-rise development projects, particularly in close proximity to their residential areas (Interview, Thai Condominium Association representative, 2014). This is illustrated in the next section, via cases where local communities protest against new high-rise development projects.

Project Size & Green Areas

With the aim of reducing the heat generated from air conditioners, developers are required to grow trees with a 5m x 5m diameter per one ton (equal to 12,000 BTU) of cooling capacity. In response to such green space regulations, big developer H opines:

> *It is impossible to follow the green space regulations. This can be exemplified by a 250 unit condominium that requires 500 tons of air conditioning, which would in turn require the growth of 4,500-6,500 square metres of trees (this is the total land space required to build 250 trees, 5m x 5m in diameter). It would be difficult to accomplish this, and even if it is possible to do so, the number of units of that particular project will also have to be reduced to compensate for the new green spaces, which will severely impact the total cost of the development project.*

The developer further notes:

> *For condominiums in lower-range markets, the behaviour of consumers may not require air conditioning in certain units. Therefore, the aforementioned green space requirement should be made more flexible in comparison to reduction or increase in air conditioning demands. (Big Developer H, 2014)*

Developers have filed a complaint to ONEP to consider increasing the flexibility of EIA regulations. However, the NEB views this green space requirement as part of their sustainable development plan, which developers must accept and follow. Nevertheless, all developers agree on the need to amend this rule due to the substantial impacts on project development. Some developers propose the creation of a revolving fund for other environmental purposes (interview, Developers, 2014).

EIA Clearer Regulation & Checklist System

The Thai Condominium Association (TCA) has also advised the ERC to set EIA standards in order for companies to operate more effectively. It now takes between 6 to12 months for EIA approval to be granted following submission. The president of

the TCA claims that this proposal could increase the efficiency of the entire EIA process and argues that the entire process must be standardised in order to ease the concerns of business owners and potential buyers. As a Thai Condominium Association representative explains:

> *The EIA permit process, both the application process and after getting the permit, has to be standardised because that will give confidence to both developers and homebuyers. The proposal, if approved, would help to reduce both the number of EIAs and the time it takes for EIA consideration.*

The TCA has also begun writing a cohesive checklist containing clearer regulations regarding condominium developments with floor areas exceeding 10,000 square metre or eight stories containing more than 80 units, as many buildings of this scale are rather similar in structural terms. It is noted further that:

> *Using this checklist, projects with a floor area of less than 10,000 square metre can proceed to secure a construction permit without receiving prior EIA approval. The aim of this checklist is to increase the speed of EIA processing and construction schedules, which may lead to a decline in condominium prices of between 3 and 5percent. (Thai Condominium Association representative, 2014)*

ONEP has also reviewed the EIA procedure and plans to have developers adhere to a complete environmental checklist under the auspices of local authorities, as opposed to having to secure EIA approval from the ERC. Local authorities are suitable in this case as they are responsible for the approval of construction permits. The TCA argues that such measures will generate new codes of practice for developers in the

condominium industry. At present, if a developer chooses to purchase land for the purposes of a potential condominium project, they are uncertain whether or not they will succeed in securing EIA approval. As there is no standardised approval process in place, certain projects in the same area may be approved while others are not, which has proven detrimental to development in the region. While development companies are committed to environmental protection, a single cohesive set of standards is required. This point is echoed by a Thai Condominium Association representative, who states:

> *Without a standardised approval process, the projects in adjacent areas may be considered differently. One could win EIA approval while the other does not. This has been a major risk for developers.*

The TCA also claims that the provision of a checklist would help to reduce spending as developers can proceed with projects. At present, developers must delay construction for between six and twelve months as they await EIA approval. This can lead developers to incur significant costs as they must pay interest on the land that is not currently being developed. This can be achieved by larger companies due to their access to financing as described earlier in this chapter, however smaller firms often do not have access to such resources. These challenges are captured in the responses below:

> *Standards aside, the checklist will also help us save costs. With the checklist, we can go ahead with the projects. Under the current rules, we need to wait for six to eight months for the expert panel to grant EIA approval. (Thai Housing Association representative, 2014)*

> *The implementation of standardised EIA rules would be of great benefit to companies since condominiums, which account for a significant proportion of companies'' assets, delay construction by up to one year as they await EIA approval. (Big developer G, 2014)*

Big developer H claims that regulatory improvements could reduce developer spending due to the increase in efficiency. The company has had to delay the construction of several projects for up to one year as they await EIA approval and they believe that the substitution of the application process with a checklist would prove advantageous to businesses and buyers alike. The company also argues that the increase in operational efficiency could reduce costs and these savings could then be passed on to buyers.

Big developer H also claims that ONEP should devise a number of different checklists based on the different conditions of specific regions. For instance, while the checklist may be adequate in the CBD, customised versions may be required in conjunction with consultations with expert panels in areas that are more susceptible to environmental issues. In effect, the checklist should suffice in areas where there are minimal risks posed to the environment (interview, Big developer H, 2014). Big developer H (2014) additionally notes that, "for some locations where environmental threats are low, just the checklist should be enough, and this would benefit both developers and home-buyers."

Redundant Regulations

There are many legal requirements for housing developments, many of which have similar aims and objectives, creating an overlap in policies. This makes it more

difficult to consider approval. Housing developers must also adhere to the following four condominium development laws:

- The Environmental Quality Protection and Promotion Act 1992. This oversees the EIA approval process.

- The Urban Planning Act. This is implemented by the BMA to oversee development projects in Greater Bangkok and across the country under the auspices of the Public Works Department. This act addresses environmental issues, particularly in relation to how the project may impact surrounding areas.

- The Building Control Act, which allows the MOI to share the Ministerial Regulations for potentially environmentally-damaging construction and development. Furthermore, Municipality bylaws can be applied by local government officials in accordance with Ministerial Regulations. This is exercised by the BMA and the Public Works Department and incorporates laws on environmental management.

- The Condominium Act. This is enacted by the Interior Ministry's Lands Department.

The developers have commented that while Acts 2 to 4 affect development projects, their effect is quite minimal because enforcers work conjointly with developers to ensure that all requirements are fulfilled. The legislations nevertheless affects decisions concerning the launch of new housing projects (interviews, developer J, 2014). The dynamics are further explained below through the responses of interviewees:

At present, in order to obtain housing development permission for one establishment, you need to gain permission from 22 approval units, causing unnecessary complexity. This lengthy process that stems from such inefficiency usually takes up more than twelve months, causing a delay that impacts financial institutions and contractors, resulting in additional expenses. (Big developer J, 2014)

Numerous planning laws can allow for the local government agencies to make informed decisions regarding housing developments. An example of this can be seen with the City Plan and Building Control Acts, under which proposed projects must take into account the environmental status of the project's suggested site. Despite this, the official EIA processes are more extensive than those used in practice, and the decision is made primarily on other regulations, such as Municipality Regulations. As a result, permissions are usually due to planning mechanisms and other laws instead of EIA guidelines. (Big developer H, 2014)

In summary, the developers and related housing associations have been intensively persuading ONEP to make some changes to EIA to mitigate delays. Nevertheless following the establishment of the National Council for Peace and Order (NCPO), significant changes have been made, three of which are particularly notable.

7.4.2 Informal Negotiations

It has been noted that the former president of big developer B once sat on the board of the ERC either as a business owner representative or as an expert in real estate business. Other developers find this inappropriate. Although he eventually stepped down, when his company project was presented to the Board to avoid a conflict of interest, his projects were never openly criticised, suggesting some bias nonetheless (interview, big developer I, 2014). Big developer I notes that:

> *It is good that business owners are able to have a role in developing and improving environmental policies, but a representative from a particular estate company should not be a member of the ERC. It will seem partial. But most ERC members today are also the consultants of many housing development companies.*

A case in point is scholar B who sits on the Board and is also an advisor for big developer A. This means that when a project by big developer A is presented to the Board, he might not comment directly and straightforwardly. Thus big developer I posits "the private sector has a great influence albeit indirectly on state agencies. Although there are a lot of indirect effects, there are too little direct ones."

Many developers, especially big developers, choose to file a lawsuit against ONEP and the expert committee as a final solution. For example, big developers have filed a lawsuit against ONEP when their projects experienced major delays. As a result, ONEP eases the EIA process up. The developers believe that the size of the company is an important matter in the EIA approval process (Big developer I). Big developer I asserts that:

> *Actually, no one on the ERC would want to get sued because if the members neglect the public, they would be criticised...one example is a condominium in Pattaya. The board is caught in the middle and that is a double-edged sword because if they ignore the issue, they may cause a problem for themselves.*

Further, big developer I claims that:

> *I think every developer has power in the state sector. The state agencies give a pretty good facilitation to the big developers. As the 20 biggest developers in the country, the state sector facilitates us in any way it can to move processes rapidly as long as it is still in the boundaries of the law.*

Business dominance and influence upon the state is affirmed by Shang's study. He argues that the property development industry has benefitted from a favorable political and legislative environment in which to operate because of big developers having provided major financial support for various political parties (Shang, 2002). He further presented the example of Bangkok Land, an acknowledged supporter of Chavalit Yongchaiyudh (a one-time Prime Minister of Thailand, having previously been the Minister of Defence) and his New Aspiration Party (NAP). Bangkok Land, the country's leading property development company, is well known for creating Muang Thong Thani (MTT), a settlement occupying a 640 hectare site to the north of Bangkok. The project included industrial and commercial units, as well as in excess of 40,000 condominium units. When the company ran into major difficulties with selling the condominium units that it had built, the Thai government stepped in to provide assistance. Only 30 percent of the properties has been sold. The government bought up some of these in order to provide offices for the Permanent Secretary and housing for Ministry of Defence staff. Other decisions taken by the government to favor Bangkok Land have been MTT's selection as a host location for the Asia Games hosted by Bangkok in 1998, and the building of part of a major motorway as far as MTT to facilitate commuting to and from the city (Sheng, 2002).

Moreover, Wells-Dang et al., (2016) claim that EIA is merely a routine technical activity, which can be used to the advantage of the private sector and their associations to meet a prearranged action development plan, if control remains solely within the scope of the ERC, and in the absence of public accountability. Shepherd (2012) affirms that the EIA processes implemented in Thailand are often considered dishonest and unauthorised, meaning that their results are not taken into account except when there are legal problems from associated complaints. Shepherd (2012) also states that numerous developers undertake negotiations without any consultation from local residents. Thus, it is not uncommon for the private sector to apply short-term solutions for certain issues, adopting practices that are illegal, but yet are usually neither discussed nor dealt with by the legislative authorities. The next section analyses how state agencies manage the feedback they receive from various stakeholders.

7.5 The Politics of Response – State's Actions on EIA Procedures and Alterations

For the current Thai government, the real estate sector is conceptualised as a key driver for economic growth in Thailand, thus concomitantly, it has implemented a myriad of policies in the past few years with the aim of stimulating the economy. The government has stipulated that the length of the EIA process should be reduced and orders that any unnecessary hindrances to development must be removed to enable projects proceed more efficiently. Indeed, an environmental authority senior bureaucrat opines "there should be fewer obstructions to investment plans as these lengthy procedures have caused delays to development projects." Further, it is noted that:

> *Following complaints from big and small housing developers with respect to the rising costs associated with the imposition of EIA regulations on projects that entail over 250 acres of land, the Office has sought to mitigate the noted challenges by adhering to old requirements which mainly apply to land sizes over 500 acres. (Environmental authority senior bureaucrat, 2014)*

Environmental authority senior bureaucrats agree with the ONEP that the time taken to consider EIA approvals should be shortened to facilitate convenience for developers, although the strict restrictions and enforcements should however remain. The reduction in the time taken for EIA approvals will be applied to private housing projects (The Nation, 2015). NGOs however argue against reductions in the processing time on the basis that the EIA is an important legal tool that is very effective, because urges developers to minimise impacts on the environment, particularly condominiums. NGO A comments that:

> *The reduction in the EIA approval processing time should require a clearer informative grounding as to why less time is needed to complete such an important examination – both in terms of environmental control justification and also a quantifiable number of how many condominiums are currently facing problems with this situation (including a monetary value of economic damage – since if this flexibility is granted to the housing industry in the midst of current expansion, there is a possibility of overbuilding (resulting in supply over demand). This will in turn affect the wider economy and the environment.*

In 2016, NCPO released an order No. 9/2016 which allowed state enterprises/government agencies to choose private companies to undertake their projects, without waiting for the results of an EIA. Numerous countries across Asia

have set more restrictive environment protection laws, whereas Thailand's changes are likely to bring in higher levels of investment. This move does not surpass the EIA, but it still increases the pressure on those taking part in EIA reviews (The nation, 2016). The NCPO statement was taken on board by the MONRE, who tried to distract attention from related issues that it would not exclude any projects out from the EIA policies in the NEQA. Instead, the order was said to facilitate the preparation of TOR sections in advance by officials, and when the EIA/EHIA was accepted, then the construction time would be cut down as it could be signed instantly (The Nation, 2016). NGOs question whether a single individual should be able to alter a law that impacts the environment that everyone uses. An NGO comments that:

> *The minimal international standard needs an EIA, which is somewhat insignificant in most cases, as discussed…Citizens across numerous regions will suffer if this order goes through, as it would surpass the entire structure of traditional decision-making. Local communities would be impacted but would also not be consulted.*

Scholar B comments that:

> *It was primarily employed to the advantage of business investment, instead of for the public interest. It is envisioned that the private sector will benefit, and the local people will suffer under the NCPO order, as the order could remove all precautionary steps necessary to protect the environment.*

In summary, the study argues that the political system in Thailand had been used as a means for ensuring the advancement of the interests of certain interest groups, rather than being a mechanism for representing and benefitting the population at large. Thus,

Thai public policy can be influenced and altered by business actors whether these are individual or groups based on the political environment in Thailand. Political elites are able to perpetuate their privileges due to extensive patron-client networks. Further, elite groups comprise both business actors and military bureaucrats who have been able to accumulate power over the years although they do not formally hold positions within the political structure.

Winbourne (2002) puts forward the argument that developing country leaders are willing to give up environmental resources in favour of economic profit and meeting short-term political targets. This behaviour is particularly harmful when it comes to continued EIA process mismanagement, which leads to greater levels of corruption and unprecedented environmental damage in the long-term (discussed in chapter 8). Even though Thai government identified EIA as a key tool for primary environmental concerns into development process, they allow some development projects to be executed in the certain special conditions. Next section discusses the role of international actors in the different approaches and how Thai state responds to both domestic and foreign funded development projects.

State Approaches Towards EIA Procedures in the Context of Domestic and Internationally Funded Projects

The interplay of international and domestic systems must be evaluated when conducting analyses of Thai state authority. International organisations are essential catalysts for establishing and expanding EIA systems, especially to developing countries. Hironaka (2002) has conducted research into the acceptance and implementation of EIA legislation in developing countries. The author asserts that,

domestically, there is limited pressure for the adoption of environmental protection measures, either because the citizens are poor and uneducated, or because of political despotism. Hironaka adds that, since EIAs tend to be imposed on developing countries by international organisations, they have become something of a bureaucratic, standardized, procedural formality (Hironaka, 2002).

Many international agencies have embraced EIA. For example, the Organisation for Economic Cooperation and Development (OECD) has proposed that member governments should encourage the adoption of EIA procedures and methods, when assigning aid to developing countries (OECD. 1992). The World Bank declared that borrower countries should undertake EIA when launching major projects, and in 2006, the World Bank revised its guidance on EIA (World Bank, 2006). In addition, the United Nations Environment Programme (UNEP) recommended that member states should establish EIA procedures and draw up goals and standards for EIA. In 2011, UNEP produced EIA guidelines for developing countries (UNEP, 2011).

Komatsu (1998) argues that both multilateral and bilateral aid organisations, particularly the World Bank and the Asian Development Bank (ADB) have played a major part in introducing EIA practices. This is partly because these organisations also fund or execute many large-scale development projects which could have a significant and negative effect on the environment. Examples of such projects include: Nam Theun Hydroelectric project in Laos, PDR; and the Mekong River Development Plan (ADB, 1997). The World Bank has set about promoting EIA concepts in Thailand. In the last few years, international lenders like the World Bank and the ADB have expanded, refined, and coordinated their EIA procedures and

strategies, in order to minimise environmental damage. In addition, they have also undertaken capacity-building, to facilitate the implementation of EIAs (Li, 2008).

In Thailand case, the divergent of Thai government approaches to EIA between domestically and internationally funded projects demonstrates a weak domestic regard and support for EIA. Explicitly, compared to international projects, domestic projects subvert EIA and environmental protection requirements (Li, 2008).

Boyle (1998) illustrates this point via the case of a tantalum refinery, whereby EIA studies were completely avoided until the project reached it final stage. The EIA revealed that the project was concomitant with negative externalities for the environment and the project was subsequently burned to the ground by a mob. Prior to the implementation phase, ONEB had recommended the conducting of an EIA following an Initial Environmental Examination (IEE) of the project and even recommended alternative project sites, however its directive was ignored.

In contrast, when foreign funding is involved, there is a higher regard for EIA processes. For example, analyses of the environmental impacts of four large dam projects funded by the World Bank in Bhumiphol, Sirikit, Srinagarind, and Bang Lang completed in 1963, 1972, 1980, and 1981, respectively, has shown that resettlement programs have improved (Boyle 1991). Resettlement programmes often form part of the conditions attached to World Bank loans thus this in part, accounts for the successful implementation of the programme. It is very interesting that the domestic responsibilities which do not form part of the mandatory conditions attached to loan packages have not improved at all. Internationally funded projects are very intentional about heeding to EIA requirements. For example, assessment's revealed

that the Nam Choan Dam, would have resulted in the flooding of thousands of hectares of rare low-elevation forest and would have further been a detriment to wildlife sanctuaries and thus, it was abandoned.

Similarly, although the initial plan for the Pak Mun Dam, entailed the relocation of 18,700 people, the project was extensively revised to preserve aspects of the local community such as its recreational amenities linked to the river. Notably however, while a myriad of anti-dam protests were launched in response to the resettlement plans, cabinet approved the World Bank loan, and the project proceeded (Boyle, 1998).

In summary, EIA has been met with significant challenges and antipathy from both public and private sector leaders, as a procedure to assist in reaching environmental targets concerning large-scale development projects. The government is intentional about implementing its industrialisation and economic policy and thus, state and businesses have been given extensive power and independence to achieve its objectives. Thus, processes may undermine any potential financial progress (such as EIA), have been given little to no political support. Therefore, the pursuit of economic development is a key reason for the limited support afforded to EIA. It is argued that Thailand took on EIA due to external pressure as opposed to a genuine interest in the environmental damage development projects create.

Boyle (1998) further explains that the reason for this is the mostly centralised, oppressive, dictatorial character of the administration, meaning that mission agencies are shielded from the policy criticism voiced by less influential agencies and the public. This political and bureaucratic atmosphere demonstrates a ‘top-down’

ideology and use of power and authority, together with the submission given to individuals in these positions of power. Furthermore, the patron–client links between political and business leaders bolster the overall aim of economic development, causing greater difficulty for EIA supporters and environmentalists to go against the will of powerful politicians and businessmen.

The limited support for EIA is alleviated to an extent by the external need for environmental protection, through major funding agencies such as the World Bank and international NGO networks which are vocal in their criticism of the more shocking proposals brought up by the local residents. Local communities and public interest groups have restricted the power of developers to a small degree, particularly when the nation was progressing mostly through external development funds and their actions were encouraged by activists inside and outside of Thailand. On the other hand, the impact communities and public advocacy groups have had is primarily unrelated to national EIA programs, offering very limited chances for the public to be a part of decisions (Boyle, 1998).

7.6 EIA and Developers' Decision-Making

Despite the fact that EIA is primarily considered a process or method to notify decision-makers of the predicted effects that their proposed projects will have, and help alleviate any negative effects, it does not inform decision-making (Benson, 2003). Garb et al., (2007) suggest that in order for an EIA to effectively influence outcomes, it must be implemented during the phases at a time when the developer can potentially find alternatives (Li, 2008). EIA in hindsight can be beneficial, since it

offers important data regarding mitigation options and continued management approaches (Bailey, 1997).

In Thailand, EIA is considered to be a way of justifying decisions already made, instead of a way to create unbiased and thorough evaluations which can help decision-making (Manorom, 2007). Thailand's housing system does not accommodate EIA in its development, and there are no laws that support EIA implementation in building control and land-use planning processes. The country has used EIA processes independently for the development of housing, meaning it is challenging for EIA to be considered during all stages of housing development. Thus, EIA serves as a rational tool during the housing project planning process, as well as an extra required document to attain construction license consent. Where EIA is thought of as a rational tool, it is important to be implemented from the very start of any development. Thus, EIA findings can be used to make decisions throughout all phases of the housing project's planning.

The majority of developers are not willingly undertaking EIA as a critical step to meet the legal necessities, and instead conceptualise it is an addition to their decision-making process. Developers mostly think of EIA as another step to gaining operating permission, instead of a way to limit environmental harm. As the EIA procedures in Thailand are enacted independently of the development permission process, it is not involved by any significant degree, in the developers' decision-making process. There is significant confusion when it comes to the rules and regulations of EIA, and how they impact their project development, giving it a sense of arbitrariness. Mostly, developers perceive EIA to have no real impact on limiting environmental damage.

7.7 Does EIA motivate companies to become more environmentally aware?

The implementation of EIA in housing development projects can be beneficial in many aspects. Should the developer seriously consider environmental impacts of a particular construction, it is likely that the housing project will be well designed to minimise environmental damage as well as impacts to local communities. Compliance with environmental standards therefore lowers the risk of environmental damage and the disruption of public health. From an economic standpoint, this should lower additional costs associated with medical treatment and/or financial compensation for property damage. In addition, better environmental planning has the potential to reduce operating costs since the cost of many unexpected environmental problems is likely to be prevented. It is typically more expensive to make amendments at the later stages of a project cycle.

EIA attempts to assist housing developers, even if it takes time and incurs new costs. Kristin (2002) believes that if the process of EIA is implemented completely in the project's design cycle, then housing developers can pinpoint environmental risks early on and help limit any related negative effects. In turn, this establishes stronger relations between housing developers, local authorities and communities, establishing an easier planning permission process. Furthermore, EIA is beneficial as it accounts for all social, economic and environmental impacts during the review of development projects (Weston & Joe, 1997). A senior bureaucrat opines:

> *The level of detail of EIA means that future standards and quality control of new-housing developments will be of the highest quality. Housing development will continue to progress regardless, so it is important to ensure these developments are sustainable and their design can be examined closely.*

When it comes to new-housing development projects, EIA law is vague as it states that EIA needs to be prepared before a project commences. Crucially, there is no rule regarding projects needing EIA in their feasibility study, and how to consider EIA to the same extent as other factors involved in the study. Project developers have stated that EIA has not established any credibility because of the lack of justification, clarification and acceptable standards related to it. This study is especially interested in examining how much influence the EIA has in the decision-making of housing developers. Measures have been taken to ensure that developers amend schemes to comply with EIA guidelines, but these have largely been ignored or circumvented. Developers have shown a tendency to secure sites prior to any kind of EIA intervention. Economic priorities mean that housing projects do not pay great heed to seemingly subsidiary issues of the environment. This study finds that in the Thai housing industry environmental considerations are not prioritised, with project proposals predicated mainly on economic considerations. Land concerns and profit maximisation take precedence over environmental concerns, which is of course problematic to the country's sustainable development goals. Developers claim that while their company is willing to comply with any environmental regulations, they must be transparent and effective as noted in the responses below:

Developers are willing to do anything to protect the environment, but need a single set of standards. (Thai Condominium Association representative, 2014)

We welcome any proposals to save the environment, but the regulatory process should be clear and facilitating. (Big developer H, 2014)

The concept of EIA is good but there should be clear and concise criterion for real estate developers to adhere to. The current criterion tends to fluctuate and it makes it difficult for the developers. (Small developer D, 2014)

Developers are willing to safeguard the environment but require a cohesive set of standards on how do so. Current regulations must be made clearer. According to Thai Condominium Association representative A:

Clearer regulatory processes would decrease costs and also increase efficiency. The elimination of the application requirements in exchange for a checklist system would also be advantageous to developers and prospective buyers…this measure would lower the costs associated with the development process and these savings could then be passed on to the buyer through reduced house prices.

Similarly, big developer B notes that "the shortening of the process will mitigate the financial burden on developers which means that unit prices can be reduced. This will benefit home buyers."

ONEP has devised a number of different checklists based on the physical conditions in different regions. In effect, while the main checklist may suffice for development

projects in the central business district, a revised version may be required for areas more susceptible to environmental damage as well as consultation with ERC. Overall, the implementation of the checklist system would be effective in most areas and would prove advantageous for both developers and buyers alike. Thus big developer H argues that "for some locations where environmental threats are low, just the checklist should be enough, and this would benefit both developers and home-buyers."

Developers have called for ONEP to implement a code of practice as the clear basis for EIA examination, as well as a guideline for developers to lower the impacts of their projects on the environment. The code of practice is seen as the solution to clarify any discrepancy between practice and consideration by the ERC. The availability of a code of practice acts as a checklist for developers to follow, because in the past, all previous building projects located in the same area have very similar attributes, but the ERC feedback can sometimes be different for each project. The ideal code of practice from a developer perspective should not be overly strict, nor contain overly detailed requirements that would hinder the development process. Moreover, developers are actually aware and conscious of the environment but there are stipulations that they think are not practical in the long run as encapsulated in the views below:

> *These environmental regulations force us to take a good look at the environment and we become more environmentally aware. However, without these rules, imagine a condominium project without a tree, that building will look bland and we risk not being able to sell the units. (Big developer B, 2014)*

In my opinion, even if there was no EIA, it is still the onus of the developers to give importance to the landscape and the aesthetics of the project. The amount of detail put into it depends on the size of the project…but once the regulations were introduced, there are many specific requirements regarding the size of the green area amongst others. If you ask me if it's a good idea, I'll say it is…every company has to compete under the same level of green environment standard. No matter how big or small of a company you are, you still have to provide the same amount of green area at the same ratio as stipulated. (Big developer B, 2014)

Without these regulations and were it up to the conscience of the developer, small companies might just build only one building and not provide any green space. It might be at low price but it might not seem appropriate. (Big developer B, 2014)

In summary, EIA is still viewed as negative in the short-run, because there is risk involved in developing costs, as well as higher marketing costs and stricter legal restrictions surrounding the EIA applications. However, the developers believe that in the long-term this will be beneficial because they will be able to adjust sale prices to higher developing costs in the long run. They also believe that the EIA requirements will be amended so that it will be more reflective of realistic circumstances.

7.8 Conclusion

New-housing developments spark interest over social, political and economic issues. Environmental considerations are rarely prioritised in Thailand. The housing project proposal is generated on mainly economic considerations. Land concerns and profit maximisation take precedence over environmental concerns regardless of the

country's sustainable development goals. The state has relaxed the EIA regulations as a way of controlling developers' impacts on the environmental in every aspect, but realistically in practical terms, this has consistently caused problems impeding the development of various building projects. This in turn has negative consequences for developers while increasing the financial burden related to initial developing costs.

Although EIA was introduced in Thailand more than three decades ago, persons who stand to gain profit from executed building projects often do not have a favourable view on the necessity of EIA. Others recognise the long-term benefits for the environment from EIA operations. These two viewpoints have not reconciled a mutual understanding as yet. Whether commentators are concerned about their own interests or with broader environmental concerns, the introduction of EIA requirements has been filled with controversy.

CHAPTER 8 BARRIERS TO EFFECTIVE EIA IMPLEMENTATION IN THAILAND

8.1 Introduction

This chapter examines the factors that impact EIA practice, thereby illuminating the present position and shortcomings of EIA in Thailand which contribute negatively to EIA's success as a nationwide project and diminish the ability of the government to solve issues regarding the destruction of environmental resources in the country. The chapter provides an evaluation of the ways in which Thailand's contextual factors influence its implementation of EIA and how the Thai EIA programmes are limited in key aspects.

8.2 Economic Development and Environmental Considerations in Thailand

Thai development has focused on economic growth, following a top-down decision making pattern. Research into NESDPs has revealed a strong tendency in decision-makers to position management of the environment subordinate to economic considerations. Economic prioritising at the cost of natural resources/the environment has proven ineffective (TDRI, 1996; Boyle, 1998). Tasneeyanond (1984), and ERI, (1991) all attribute this to the lack of prioritisation of the environment at any stage of project developments. For example, while NESDP No. 11th posits an ambitious vision of an urban future characterised by green, energy efficient, compact and environmentally friendly cities (see Table 20), this vision is very much removed from the country's current urban realities, especially given the difficulties experienced in reconciling urban regeneration with environmental sustainability.

Much of the literature in this field depicts similar perceptions whereby the environment and economy are seemingly at odds (Boyle, 1998; Kaosa-and & Pednekar, 1995; Pimcharoen, 2001; Simpson, 2015; Suwanteep et al., 2016). The emphasis in NESDPs has been placed on industrialisation with economic growth the main priority.

Table 20 The 11th National Economic and Social Development Plan (2012 – 2016)

National Economic and Social Development Plan (NESDP), **11th National Plan (2012–2016)**
5.2.3 Develop environmentally friendly cities with an emphasis on integrated urban planning having cultural, social and ecological aspects:
• Develop compact urban designs where areas are used creatively, with emphasis on the expansion of green spaces and increased energy efficiency. Infrastructure design technology, improved transport systems and energy-saving residential buildings should be promoted. In addition, an ecologically sound urban model should be developed and specific green areas set aside for agriculture and urban farms. • Utilise tax support and other incentives to redirect technology and materials toward renewable energy. Regulations should be updated to increase efficiency in energy management. • Supervise intensive land use both inside and beyond cities and establish measures to curb urban sprawl. Plan to incorporate public art and designate cultural heritage sites. Communities and local administration organisations (LAOs) should develop areas at the sub-district, district and provincial levels, and these should be relevant to the means and lifestyle of the inhabitants as well as to the sustainable capacity of these areas. • Manage an integrated urban environment by using innovative technology for wastewater and solid waste management, using the 3R principles (reduce, reuse, and recycle). LAOs should build capacity to manage the environment efficiently with participation by all stakeholders.

Source: NESDB (2012)

Kaosa-ard & Pednekar (1995) note that existing environmental management policies in Thailand have concentrated on the resolution of ongoing problems as opposed to preventative measures. The problems faced in Thailand have been catalysed by a lack of comprehensive planning throughout its new stage of industrialisation, owing to the disparate agencies and policies that have been associated with environmental considerations. This lack of coordination (Ludwig, 1997; TDRI, 1996), despite many policies originating within central government, has been further perpetuated by disconnects at the local level, where the responsibility to introduce these plans lies with upper level policy makers who are simply not well connected to the realities of issues at the micro scale (Kaosa-ard et al., 1995; TDRI, 1996).

In summary, relentless economic growth has undoubtedly destroyed natural resources. Poor, unrefined protocol with legislative loopholes, insufficient oversight and enforcement as well as inefficient hierarchic structures in management have allowed the excess consumption of resources to proceed unhindered. Laws and policies are abundant however it is how these laws and their regulating bodies operate that is problematic. No clearly defined boundaries or domains exist, resulting in a flawed system (Sanidvongse, 1984; Kaosa-ard et al., 1995; Ludwig, 1997). These issues are discussed in the following sections.

8.3 EIA Evaluation

As stated by Wholey et al. (1970), evaluating the effect that policy has entails assessing the general efficacy of a state scheme insofar as it is fit to achieve its aims. Prior to investigating the effect that EIA has on new housing developments in Thailand's capital and identifying ways in which to improve the EIA process, it will

be useful to examine EIA's advantages and limitations. This chapter examines the elements that impact EIA practice, thereby illuminating the present position and shortcomings of EIA in Thailand. In an attempt to identify the shortcomings and, moreover, to improve the efficacy of Thai-based EIA systems, the study underlines the basic components of the system and analyses those areas that can be improved.

Thailand's legal system, over the recent ten years, has been subject to modernisation and considerable improvement (Langkarpint, 2000). Despite its highly developed regulations, especially with regard to its updated environmental law, it is interesting that EIA has failed upon implementation. Glasson et al. (1997) have observed that enhancing EIA mechanisms' efficiency and quality has been a common focus of much of the research into the subject. The scholars advocate for procedural and organised methods to determine the quality of EIA against standard guidelines and procedures, with both EIA implementation and Environmental Impact Statements (EIS) influenced by quality assessments. As discussed in chapter 2, in order for features of evaluation to be determined appropriately within EIA, substantive, transactional, normative and procedural aspects to gauge efficiency have been devised by Chanchitpricha & Bond (2013). Furthermore, Veronez & Montaño (2015) have revealed the most effective ways to enhance EIA application by means of a holistic method. Veronez & Montaño (2015) and Bond et al. (2013) argue that contributing to procedural ability and efficiency is the best approach to enhancing EIA mechanisms, due to the belief that processes of EIA that are of significant efficiency will result in improved results from EIA application. Kurimoto (2008) also notes that EIA mechanisms' enhancement would be achieved through sharing of individual experiences and information regarding the process.

In the context of Thailand, a range of researchers, including Lim (1985), have advocated for research into EIA systems and developed conceptual frameworks to further the study. Lim (1985) developed a framework to analyse organisational mechanisms and performance outcomes of EIA implementation while Boyle (1998) formulated a framework to focus on social, economic, political, and especially cultural impacts of EIA implementation in three other countries: Thailand, Malaysia, and Indonesia. A notable comparative study carried out by Yap (1994) focuses on Thailand and Canada, primarily addressing scope, respondents, review requirements, public involvement, and screening specifications linked to EIA operations. A framework of the foundational parts of an operational EIA system and quality control processes was formulated by Leu et al. (1996), and the researchers used the framework in the context of the UK environmental evaluation system.

The pace at which environmental policy in NICs has institutionally developed has been more rapid than economic expansion in developed countries, as explained by Harashima & Morita (1998). This advancement is generally attributed to the implementation of policy positions that reflect those carried out in developed nations. Additionally, Thailand's stance towards environment-based policy has been dependent on, and considerably impacted by, aid from multinational organisations including the World Bank. In a similar manner, multinational organisations have also impacted stances towards environment-based policy. Furthermore, the Thai governing body has carried out environmental schemes that are funded by the agencies. EIAs are the most commonly employed project planning components employed by the Thai nation, and this process was drawn from the experience of multinational organisations. Owing to this influence, the EIA bears relatively small consideration in

terms of varying socio-economic, cultural, political, and environmental situations. An environmental authority senior bureaucrat suggests that:

> *While Thailand's EIA has officially existed for over twenty years, it continues to struggle to operate effectively. This may be attributable to the fact that the system was imported from elsewhere and pasted on to the Thai situation.*

The extent to which the facilitation of EIA is ineffective is a central concern for the Thai state, owing to the absence of political backing, unclear legislation, an inflexible governance structure, inefficient allocations of authority, lacking intercommunication between the civic and private realms, insufficient monitoring and implementation, and mechanism impotency. These elements are examined in the next section of this chapter.

8.4 Legislative Requirements

Various interest groups have articulated the need for elucidation on EIA legislation and mechanisms, due to the presence of vague guidelines and procedures. As the preferred best practice by international institutions, EIA has been adopted as a component of development preparation in Thailand. However, particular political, social, economic, environmental and cultural nuances are scarcely considered in EIA systems and the context is based on industrialised countries' operational environment. For example, US legislation concerning EIA was largely transposed into the context of Thailand, however due to the incomparable degree of economic advancement, the USA has been stricter in applying the legislation. At the centre of Thailand's environmental stance is the functional utilisation of the natural surroundings. The

environment is not valued highly among societal figures, including civil servants and organisations, and, according to scholar A, "Thailand lacks in terms of the implementation of legal requirements of EIA."

EIA policy can be contextualised as predicated on a top-down, command and control structure. It is noteworthy that subsidiary elements are also present, including technical and effluent standards (Leoseng & Zimmermann, 2005). According to NESDB senior officer A, "the policy-level entity is not appropriately formulated; it fails to function smoothly and, moreover, it is not supportive of regional governmental bodies in terms of carrying out environmental planning."

There are currently over 20 government bodies involved in implementing environmental regulations to some degree. However, it is difficult to grasp how the EIA and environmental management system works in practice, given the lack of clarity associated with the regulations of each different jurisdiction (Kaosa-ard & Pednekar, 1996). Hence due to the poor drafting of laws and policy, EIA is not effectively enforced; laws are associated with ambiguity, thereby rendering understanding, monitoring, and implementation highly complex (discussed in chapter 5). As there are no alternative specifications that can direct entities in terms of EIA action, separate developing actors and EIA practitioners can justify disparate interpretations (Kaosa-ard & Pednekar, 1996). In addition, according to Brandon & Ramankutty (1993), tepid law and administration processes jeopardise the government's capacity to encourage adherence across the board, and this can be attributed to the influence of the US's approach on the Thai EIA system. Brandon & Ramankutty (1993) maintain that, in the Thai context, enforcement is comparatively relaxed in light of the varying stages of advancement.

Researchers have found that regulations are not often effectively enforced in Thailand (Leoseng & Zimmermann, 2005). The OEPP (1998, p.8) of the MOSTE, the major policy maker of Thailand, noted in its 1997 Environmental Report that most of the country's organisations, rules and policies lacked authority due to poor enforcement. MOSTE also made a number of points regarding a lack of clarity in the legal system. Firstly, executives are given significant authority over rules as a result of ministerial regulations, notifications and announcements. According to planning authority senior bureaucrat:

> *Executives are still able to impact the authorities in charge of implementing regulations even when they are not able to control legislation themselves.*

The authority further notes:

> *one authority may be concerned about interfering with another authority's 'turf', and therefore may not enforce a certain law due to overlapping legislation.*

As discussed in chapter 5, the Thai context does not have suitable EIA comprehensive guidelines for EIA preparation and ERC decision-making, and the lack of direction for EIA review has severely hindered ONEP's capacity in light of the missing reference corpus. Consequently, evaluation and decision-making for every EIS are centred on the individual ERC members' capacities, experiences, and perceptions, and this is important in the Thai EIA approval procedure. As a result of the fact that solely general directions for EIA preparation have been drawn up, heated discussions among the pivotal figures in the EIA administrative procedure have been carried out prior to

a rejection or approval decision. In combination with this, despite a number of environment-based legal provisions being prominent in terms of environmental management and EIA activity, the enforcement of EIA integration into land-use planning and housing development is not linked to any specific law. One example of this is the City Plan Act and Building Control Act. According to a local authority senior bureaucrat:

> *The code of practice is comparatively clearly defined and thus superior to the current system. BMA supports regulatory change especially if the approval process can be transferred to local authorities. This may take some time but nevertheless, the BMA does also require this time to train its staff to cope with increased work volumes.*

It is often the case that the limitations are affected by inadequate regulatory measures for EIA along with ambiguous policy provisions for sustainability moving forward. These have been issued by governmental authorities as they come to and step down from power and, at the same time, economic development has primarily been addressed at the level of policy.

It is also important to emphasise here that the central issue for EIA implementation in Thailand is the unambiguous directives for conducting EIA. To a lesser degree, this can be attributed to the overview of the EIA provided by ERC contributors. A consequence of this has been the needless expenditure on non-significant elements of the EIA. Also, tasks that should have been prioritised have not been financed and have been assessed as unsuitable. Thus, recommendations and continued research have consumed the time of ONEP and ERC, contributing to the long project approval times. According to an Environmental authority senior bureaucrat, “the amending of

the rules could mitigate all these complaints and developers can avoid the EIA committee insofar as they meet the stipulated criteria." He is further of the view that "because the EIA is currently overwhelmed, it does not have the requisite resources to properly assess projects. The amendment will relieve the committee of this burden in light of the challenges they face."

Private sector actors remain concerned about a draft bill on the EIA which entails a provision that permits local authorities to spearhead EIS evaluation as this may engender inconsistent and biased assessments. Private sector actors are also concerned about the availability of staff to enact such amendments. Thus, a Thai Housing Association representative is of the view that "the government must simplify the law in a way that is universally accepted by all developers."

8.5 Political Commitment

Increased democracy in the Thai political sphere has allowed certain institutions, directed by elected representatives, to acquire a degree of authority in terms of formulating environmental policy. This has taken place according to ministerial regulations to convey natural assets to those who offer political support and those they represent or, alternatively, by replacing those in office who could compromise their activities. Simultaneously, key aspects of policy that could result in negative effects for electorates have been interrupted, and this is symptomatic of the ineffective prioritisation of policy formulation by policymakers. This is due to their disturbance of the operations of environmental management institutions, which has led to lacking confidence, reduced morale for those in subordinate positions, and ineffectiveness (Kaosa-ard & Pednekar, 1996).

Tan (2004), Bruch et al. (2007), and Li (2008) highlight that the absence of the political is seen in the misalignment in institutional power. It is often the case that the ONEP official supervising the EIA is subordinated to an external governmental body or privately-located project participant. Additionally, important policymakers frequently see EIAs as elements that discourage investment, and a widely held focus on economic health in Thailand often favours profit maximisation over environmental sustainability. The following quote from a national environmental authority officer captures the essence of political EIA consideration:

> *The EIA policy procedure is not sufficiently active. This is primarily because no elements have emerged as clarifications. The relevant sectors should consider how to increase activity, thereby gaining insight into EIA policy and the development projects. Politicians generally don't reduce options but promise to engage in certain actions.*

Boyle (1998) has highlighted the fact that considerable political and organisational motivation towards economic progress was prevalent in the upper echelons of Thai communities. Interestingly, the insistence on economic development and profitability accounts for the lack of interest in EIA and environmental sustainability measures. The generally centralised and dictatorial governmental approach contributes to the isolation of mission agencies from justified and constructive critique by the civic body and subordinate organisations. Boyle (1998) notes that the political and bureaucratic landscape in Thailand is reflective of the hierarchic layout of its general national culture; one product of this is the general reverence given to individuals with a higher social position.

Those in executive positions are provided with considerable authority by the Thailand legal code. Consequently, those in such positions can re-establish and modify the rules and, according to Leoseng & Zimmerman (2005), they still impact the supervisors of the regulatory enforcement even when they do not have the authority to reformulate laws. One senior bureaucrat stated that, in essence, individuals in their position must consider that no singular figure has complete authority. Authority in making decisions tends to be distributed across different organisations. The following quote from a national environmental authority officer captures the willingness of politicians in the decision-making process:

> *We have to consider that actually, none of the decision makers or policy makers has absolute authority in making decisions. Authority in making decisions tends to distribute across different organisations. If we wait until politicians and decision makers get ready for the incorporation of proposed changes from the EIA process, I think they will never get ready. So, we have tried to persuade them in parallel with gaining the public voice to force them based on evidence and regulatory processes. This strategy tends to fit with the Thai context. After they agree to take this concern into account, we would explain to them to build more understanding about EIA implementation.*

It is also pertinent to note that, as proposed by Boyle (1998), the permeating patron-client interrelations that have been established from the political to the corporate world have reinforced the drive towards economic advancement. This has contributed to the difficulty with which EIA proponents, internal and external to the government, can oppose the vested interests of those in higher positions.

Additionally, the NEQA appears not to offer either legal sanctions or punitive measures for project advocates who fail to carry out EIA procedures; the sole drawback is that operational authorisation could be retracted, but this is relatively appropriate. It is notable that the enforcement of EIA is linked to alternative but linked environmental legislation. Despite this, not adhering to the EIA specifications has yet to be subjected to a legal review; for instance, punitive measures have not been initiated for organisations that fail to carry out the after-project phases or the monitoring and auditing requirements. Furthermore, no entity has the capacity to hinder non-adherence by employing an injunction. Practically speaking, the Prime Minister, the Cabinet, and the NEB could provide such an injunction but, from a legal perspective, although this would be considered as political rather than judicial operation (UN, 1991). A key concluding remark is that, in terms of carrying out EIA in the context of Thailand, numerous issues stem from the absence of political will to establish EIA as an integral component of the decision-making and planning process.

The implementation of EIA has been significantly impacted by Thailand's recent political discord, which has spread across all Thai societies as well as the country's politicians themselves. This results in little focus on environmental policy, since the government is occupied with creating greater political stability. Additionally, as Glassman (2010) points out, many government officers choose to take a passive role in decision-making due to the lack of political stability and clarity in policy guidance.

8.6 Political instability

Due to its authoritarian governance structure and the complicity of large businesses, legislative requirements imported from Western contexts have been inadequate for

ensuring successful environmental governance in the context of Thailand. Given its history of political instability as well as the paternalistic authoritarianism (Connors, 2007; Chaloem-tiarana, 2007) that permeates its political system, environmental movements have often found it difficult to lean on legislative structures to reinforce their efforts thereby achieving true participatory environmental governance (Streckfuss, 2011). Political instability continues to adversely affect the effective implementation of environmental policies, and further, unstable political climates generally undermine investor and consumer confidence (Bank of Thailand, 2009).

Thailand's unstable political situation hampers the policymaking process as officers inherently adopt a neutral posture in order to protect their careers and finances (Glassman, 2010). As an Environmental authority senior bureaucrat notes:

> *There is not much confidence that the laws can be effectively implemented because of the politics that underpins the implementation stage. A particular government may pass a law but it will not necessarily be implemented by the subsequent government. In some cases, laws are implemented so hastily that there are loopholes.*

With the political climate still unstable, it is unlikely that planning regulations and EIA laws on their own can increase consumer confidence and this can engender negative impacts for both developers and the new housing market. The research shows that property prices in Thailand have risen only steadily in the past several years partly due to the uncertainties associated with the prevailing political uncertainty. Notably between 2008 and 2016, house prices rose only by 29.1 percent (see chapter 4 section 4.3). Thai Condominium Association representative comments that:

> *Confidence in the market was detrimentally impacted by the political instability surrounding the coup against the existing government; this subsequently caused the value of property to fall.*

It is for this reason that a Thai Housing Association representative opines that "due to the political uncertainties, the Thai housing market is not attractive to buyers especially in the case of foreign buyers."

Thailand's political instability further impinges on the country's governance—while on paper, Thailand has experimented and subsequently adopted democratic systems of governance, this has been largely unsuccessful. The transition to democracy, it is argued, has mainly been a proxy for consolidating power and preserving group interests. According to a lobbyist, "several elected members of parliament often are not concerned about representing the people but rather interest groups."

> *Almost 85 years following its first election, Thailand continues to grapple with democracy. said Scholar B*

8.7 Institutional and Organisational Problems

According to Glasson et al. (1999, p.352) many developing countries experience difficulties in implementing EIA due to weak institutional structures. These institutions often lack the capacity unlike in developed countries (Biswas, 1992) as well as the political clout to effectively spearhead the implementation process. At the ministry level, Environment ministries are often relegated by the more influential ministries. It is these dynamics that partly explain the top-down character of EIA (Rayner, 1993).

Both public and private spheres are implicated in the enactment of environmental strategies with cross-institutional projects, as noted by Pressman & Wildavsky (1973). As such, recent studies have considered how such institutions can work conjointly in order to enact environmental strategies in the developing world, including those by Brinkerhoff (1996) and Lemos (1998). The following discussion critically examines the flaws of enacting EIA strategies in Thailand, particularly when multiple companies are involved.

Studies by the ERI (1991), TDRI (1996), Ludwig (1997), and Rattanatanya (1997) have outlined the major issues regarding companies involved in Thai EIA projects. These largely consist of issues with the insufficient application of current ecological regulations, inadequate governance systems and the lack of capacity of policy-makers who do not assist regional groups in the execution of environmental strategies. Furthermore, the principal governing groups do not interact consistently in order to ensure the successful achievement of organisational goals. These shortcomings are related to the fact that the executive companies lack the staff, materials and other resources to undertake their roles adequately, and that overall administrative function is diminished as not enough is done to invite other areas of society to take part.

The organisation, preparation and execution of environmental strategies are undertaken by a variety of governmental sectors in Thailand, as governance is typically administered from the centre. This means that most policies are determined from the highest level of government, and may result in problems when several departments perform similar roles, or retrench into possessive attitudes, as the direction of accountability is unclear. Enactment of environmental organisation and

EIA factors is largely complicated by these inter-departmental relationships. In order to analyse the issues further, the next section is divided into three parts: issues that exist between institutions; issues that exist within institutions, and the issues between organisations and communities.

8.7.1 Issues that Exist between Institutions

The relationship between central and local governments is characterised by a patron-client slant. Despite the shift towards decentralisation, it is only implemented superficially (Guerra & Guerra, 2004). A local authority senior bureaucrat opines that "the central government essentially controls local governments and dominates their activities. Local governments thus have very little power in the areas of borrowing and spending particularly." These dynamics may be explained by the fact that Thailand has historically had a prolonged monarchy system, up until the early 1930's which marked a shift towards a constitutional monarchy. Due to this history, the central government maintains its dominance and further, because Thailand has never been colonised by any Western countries, its administrative and power structure has largely remained consistent throughout its modern history which means that western ideals concerning strong local self-governments do not feature as part of its political orientation (Guerra & Guerra, 2004). Although a decentralization policy has been in place for several years, to enable local government officials to take financial and organisational decisions, in practice, the situation is different. According to a local authority senior bureaucrat, "the government in Thailand exerts too much centralised power, leaving local authorities with little freedom to make their own decisions."

The 1997 amendment to the constitution decentralised certain powers, to enable some policies to be decided upon locally, with local authorities making decisions on

governance. Agenda 21 deals with sustainable development in Thailand, encompassing land-use decisions in the context of protecting settlements from catastrophic events both caused by nature and human activity. Although Thailand's Town Planning Act (1992) stipulates that all planning decisions should come under the auspices of the central Department of Town Planning (DPT), which resides within the Ministry of Interior, such authority was transferred to the provinces under the constitutional changes of 1997 (Guerra & Guerra, 2004). Planning authority senior bureaucrat further adds:

> *Since then some power has rested with provincial governments, although the provincial governors of these local authorities are put in place by, and are answerable to, the Ministry of the Interior which is how power has actually remained very centralised. Even city governments, who are democratically elected, have a scope of power that is limited by the higher authority of the provincial government.*

There is much ambiguity over who is in charge of making decisions, and the relationship between ministries and their internal departments tends to be complicated. In many cases, ministries choose to operate independently as much as possible, which is not in line with EIA requirements. Dougherty & Hall (1995) point out that organisations often fail to collaborate even in the existence of official systems for doing so. Therefore, it is important to examine the need for unofficial relationships and associations to be developed. The principal problems occurring between different organisations stems from an absence of collaboration between the varied groups involved in implementation, an absence of successful relations between establishment figures and external groups, widely spread accountability, and the contradictory goals of each organisation.

Bureaucrat Ranking

The government of Thailand appears to be mostly concerned with speedy economic progress f. According to Jan (1995) and Klarer & Francis (1997), state agencies that prioritise economic development have a great deal of political control and prominence, often gaining greater resources than agencies focusing less on economic progress. Typically, this has meant that environmental agencies have received fewer resources as they are deemed to be less politically significant, or may involve negative political actions like the commandeering of property or capping urban expansion, according to Gamman (1995). According to a NESDB Senior Officer, "the system of the Thai government is highly centralised whereby many decisions are finalised from above tiers."

Thai policies extend across a multitude of ministries, agents and government sectors. Such a position whereby parties are compartmentalised has prevented the integration of development and environmental management and contributed to a poor performance on the part of implementing agencies. Boyle (1998) has suggested that these governmental difficulties are related to cultural factors, including the stratified nature of Thai society, wherein the majority of control and respect lies with the upper groups, and only trickles down through the other groups from this upper tier. Furthermore, Boyle (1998) implies that codified patron–client relationships and the willingness to circumvent clashes mean that governmental workers will work to maintain the status quo, backing up their managers and supervisors. This has meant that relations between companies are often only undertaken through the managerial tier, with discussions at the foundational level a rare occurrence. Overall, organisation

and collaborative working between institutions, or on occasion in the same institution during environmental or EIA projects are difficult.

Furthermore, according to Zhang (2007), the powers granted to environmental agencies, particularly regarding the EIA, may be supplanted by other more influential departments, as it holds less clout than these alternative governance groups. MONRE has attempted to prove its power as an internal governance agency in contrast to other groups that tend towards the manipulation of environmental sources. Accordingly, the EIA faces great challenges when attempting to blend environmental goals into the organisational stage and execution of particular projects, even when they reveal the negative consequences of ignoring environmental factors, or criticising extant projects.

Cooperation and Coordination among government agencies

Thai laws grant significant authority to the line ministry, which assigns and manages officers from Bangkok to the country's various provinces. The line ministry's power over the country's provincial government is a result of the country's centralised budgeting system and administration, as Kaosa-ard & Pednekar (1996) explain. Given this, effective EIA implementation is thwarted by a lack of local government authority and the lack of collaboration between ministries. A study by Marsh (1998) found that if those enacting the policies are not involved in the decisions leading to those policies, problems can arise when attempting to execute such ideas. This can occur as the policy execution and design is not undertaken by the same team, but by separate groups as scholar B notes: "governmental organisations do not harmonise over projects which leads to inconsistencies in overall policy as distinct policies are

introduced by separate departments, and results in unsuccessful or poor enactment of EIA"

A receptive, multi-departmental EIA with its rules enshrined in legislation has been proposed as a way to get around such problems, but in actual fact the situation in Thailand is characterised more by ineffective or inconsistent governmental determination to meet such goals, less deliberation of the effects on specific societal groups, and tolerance of powerful groups, which affects EIA enactment as a whole. Planning authority street-level bureaucrat B is of the view that "organisational structures are typically based on functional lines in a way that work crosses functional boundaries leading to delays."

Planning and enactment of town or city expansions requires the agreement of various groups, including local, regional and national organisations. As so many groups are involved, many of whom may have corresponding actions to perform, a lack of organisation or management may exacerbate general issues, and prevent the production of a wider-ranging system of environmental policy that incorporates housing. According to Brandon & Ramankutty (1993), separate companies are typically left to enact their own work with a lack of appropriate cooperation. Furthermore, Allison & Halperin (1972) declare that administrative struggles can negatively affect the enactment of other societal changes, as separate groups may contrast in their overall aims or ideas about how to solve the problem.

Various governmental bodies and divisions are usually given different tasks within the wider operation of government. Consequently, only if a legislation or policy that stipulates a government environmental body becomes involved in housing or other

construction schemes, do they become involved in assessing and regulating the state's strategies, agendas and schemes. It is common that various issues such as the character, plan and application of environmental bodies' involvement may cause tension within government bodies, regardless of any consensus surrounding the greater cause for which it relates to, for example ensuring sustainable development (Oliveira & Puppim, 2002). Consequently, there is largely only hypothetical agreement concerning the harmonious alignment of environmental sustainability and developmental aims. According to EIA consultant A:

> *Management of EIA throughout Thailand is poorly synchronised, as ONEP takes control of the counselling stage, setting up EIA and overseeing accounts of EIA, thereby restricting the ability of separate groups to react or remark upon EIA.*

Wang et al. (2003), Tan (2004), and Li (2008) have thus identified that there is an absence of unity between EIA policies and aims as outlined by the central government, and the everyday actions undertaken by the EIA on the ground. In Thailand, the inability of EIA to be implemented in general urban planning and expansion procedures, particularly with departments outside the ONEP, is of great concern, and is a key setback, particularly as urban expansion requires the actions and input of various departmental groups. EIA consultant A further notes:

> *If EIA is related to developments, the overall outcome is subject to both the permission of housing agencies, and the EIA, each of which are undertaken without relation to each other. As such, a number of policy departments are implicated in a single process with overlapping functions.*

Government organisations differ in their interests when it comes to the environment and to development. Because different departments are assigned to different issues, these government departments only collaborate when it is mandatory for them to do so. According to a Thai Condominium Association representative:

> *The ONEP of MONRE takes charge of the EIA, but alternative departments and organisations such as MOI or BMI take charge of the building standards or urban planning behaviours to offer permissions. These authorising groups are only responsible for the latter elements, but have no input or control over EIA aspects, which are supplied in distinction from and considered in isolation to the bid for planning permission.*

These areas have not yet been condensed into a single process, and given the independent nature of EIA control, particularly with its enactment, it does not form an important part of the acceptance procedure. The Thai Condominium Association representative further adds:

> *The interests of the MOI and BMA and those of the EIA (via the ONEP) are in conflict. Consequently, developers have been trying to find a resolution. Developers also complain about the lack of central agency responsible for aligning the interests of different departments and feel that there is a need to incentivise resolution on these issues.*

In summary, the increased emphasis on environmental concerns has influenced the implementation of policy on all levels but the state government lacks a cohesive approach and there are often procedural inconsistencies as a result. In particular, the state government tends to devise detailed plans on urban regeneration as a whole, but fails to counsel local government bodies when it comes to practicalities like project

implementation or land-zoning (Rattanatanya, 1997). The traditional form of Thai government consists of a hierarchical structure wherein duties are split between various groups in the middle to upper tiers of governance, leaving little control or accountability with the tiers at the bottom of the framework. Additionally, while successive governments have claimed a desire to enact environmental laws, this has been more difficult in practice, due to the input of various groups. While MONRE is in control of preserving natural materials, the MOI and BMA also have overlapping accountability in supervising the environment. NEQA 1992 also allows the NEB to outline ecological powers if it discerns a lack of success in the implementation of environmental laws. Control of the 70-plus acts of legislation introduced from the 1920s onwards lies with a number of different governance organisations, and has led to increased friction between departments due to a lack of final accountability, according to Harashima (2000).

Within Thailand, official problems exist as national and local governments do not adequately direct the ecological policy, nor is there adequate communication between separate agencies within these hierarchies. As such, practical methods to enact environmental policies, like the EIA, are affected as much by bureaucracy as by misadministration. Furthermore, the entrenched departmental approach of a large number of these governmental policies ignores the interrelations that occur between areas such as construction standards, local rights, the use of environmental materials, or property functions.

Often, there are problems wherein departments only take responsibility for the particular actions or legislations officially granted to them, or conversely where numerous groups state that they are in control of one specific area, leading to

territorialism or conflict. When a lack of unity in management occurs, or where legislation contains several inconsistencies when they are enacted by separate departments or even groups from different sectors, one may end up with ineffectual or even poor outcomes. These problems, specifically the entrenched, departmental behaviours, have prevented the adequate application of EIA objectives in Thailand.

Although it is evident that a wider ranging EIA policy applied across the board and incorporating the cooperation of separate groups would be beneficial, Thailand is still facing issues with EIA implementation due to the hesitation of governmental groups to implement this, neglect of the effects of the societies implicated by policies, and over-tolerance of powerful interest groups. Indeed, agencies can be in conflict about all kinds of issues even when they agree on the bigger picture. This is common in sustainable development projects, for instance, where the different agencies have different opinions on factors such as who is responsible for implementation and how the projects should be designed. Therefore, at present, the alignment of environmental and development interests appears to be something of a pipe dream.

The local government has limited authority over the design aspect of the process for the following reasons:

- Design plans must be sanctioned by the state government as there is a lengthy administrative process involved in the approval of any local construction project.
- Local state bodies lack both the resources and specialist knowledge needed to effectively devise construction plans.

Thus, the convoluted nature of the planning process in Thailand proves detrimental to effective implementation as conflict occurs between each hierarchical level involved in the process. The local government is solely responsible for the realisation of plans yet has no input in the initial design phase of the project (Cu, 1991; Kaewasun, 1993; Lohani et al., 1997) .

8.7.2 Issues that Exist Within Institutions

Environmental agencies with the mandate to implement EIA programs are relatively powerless and have very limited decision-making abilities. Thus, such organisations do not have much authority to ensure that EIA is implemented effectively.

Organisational issues can take the form of a lack of or misunderstanding of practical data, or a hierarchical structure that does not take account of lower-tier ideas. Additionally, groups executing EIA may suffer from a lack of staff, resources, or the additional materials typically required in order to perform their environmental duties successfully (Brandon & Ramankutty, 1993). Awareness and comprehension of the methods of EIA enactment between the implicated agencies is variable, which is significant as those involved in enacting EIA may greatly affect how EIA is applied during the design and managerial stages. Issues typically exist in how the legislative elements linked to EIA are applied, as well as the shortage of capable and informed staff within the field of EIA in Thailand, largely restricting how applicable and successful the process can be.

The shortfall of staff with effective skills in both practical and scientific areas is particularly significant as these figures are necessary when undertaking the evaluation

of the environment implied by EIA processes. According to the UN (1991) there are not many skilled practitioners who have the necessary abilities, especially in the developing world. A significant proportion of Thailand's talent has moved to the private sector in pursuit of higher salaries due to the country's economic development. Some of the most negatively-impacted ministries are those that depend on technical talent, such as scientists and engineers. As Kaosa-ard & Pednekar (1996) point out, the public sector must invest more in human resource development if successful environmental management is to be achieved. This is due to the significant limitations that the above shift has caused in the arena of environmental management in the public sector. This is prevalent in Thailand, where the EIA workforce does not have many practitioners capable or knowledgeable enough about the wide range of environmental, developmental or housing problems they will encounter. This means that the necessary tasks cannot be completed, and leads to a lack of success when implementing EIA. Issues are present with each group involved in the process: from national, regional, and local governments to the EIA practitioners. A local authority senior bureaucrat explains that:

> *The role of the BMA is currently limited to only issuing construction licenses to developers in possession of EIA approval. The BMA also focuses on monitoring compliance as per the directives of ONEP.*

The major EIA group within Thailand is ONEP, which controls the managerial aspects of procedures, outlining the steps of EIA and how it should be enacted in practice. As EIA was brought in to Thailand from abroad, there are issues with the recruitment of appropriate staff, not only for the advisory organisation but also for ONEP (Ludwig, 1997). In both a practical and directorial sense, this can cause

problems throughout the EIA procedure. Most typically, this takes the form of inadequate EIA applications, which consequently result in setbacks later in the assessment and sanctioning stages (UN, 1991; TDRI, 1996; Ludwig, 1997). Furthermore, staffing problems do not only affect the central government groups, but also the smaller groups taking control of the observational EIA functions and those enacting the legislation. This is arguably more acute, as these departments have relatively little power within the hierarchy, lacking the appropriate functions, workforce, resources and tools. As such, it appears that none of the supervisory groups as well as the non-public groups are prepared to take on these directives appropriately. In addition to these inter-organisational complications, there are also internal problems with clashing aims and responsibilities, both nationally and locally. As noted by local authority street-level bureaucrat E:

> *EIA and even urban planning is generally limited because of the lack of collaboration between departments in BMA. Due to this lack of collaboration, management during emergency situations have often been ineffective.*

8.7.3 Issues that Exist Between Institutions and Civil Society

Issues arising in the relationship of institutions and civil society can take the form of the inadequate involvement of locals in planning stages and overlapping jurisdiction over the enactment or alteration of processes by singular agents. This can result in the public losing faith in governmental agents regarding their ability or obligations towards extension tasks. Additionally, both national and small-scale governmental groups have been found to inadequately involve the wider society in their projects.

In Thailand, details of ongoing developments or their proposed effect on the environment is hard to access, as EIA does not provide their consultation details openly, and often may only be released through secretive channels (Boyle, 1998). Furthermore, governmental access to and distribution of relevant data is affected by the inefficient structure of EIA frameworks, and by pre-existing government hierarchies. Such restrictions on the access to and sharing of relevant material has a major effect on how well EIA (and other multi-agency projects) can perform. Those directly implicated in projects in society are unable to consult the material produced by multiple agencies undertaking EIA behaviours (Boyle, 1998), meaning they are also unable to provide informed commentary during design stages. As such, EIA agents have little access to the valuable information locals may have regarding regional circumstances, or to get involved with related activities instigated locally. In such circumstances, the agents and the local community are subject to gossip, misinformation, mistrust, or even direct complaints and conflict, which can impact negatively on the whole process. Within smaller hierarchical groups, the absence of access to data, lack of collaboration or disorganisation can result in restrictions to the government's understanding of how developments may affect the local environment, or how to mitigate this (Suwanteep et al., 2016).

As Thai governance is typically hierarchical, authoritative and patriarchal, one should not be astonished that access to materials is so constrained. This methodology allows the governmental or supplementary sectors and their financial backers to keep those who might be negatively affected by developments in the dark. As Boyle (1998) has stated, this is particularly pertinent when governments are able to or wish to disrupt protests directed at their behaviours. In this sense, the availability of relevant,

comprehensible material is of utmost importance. EIA has often been criticised for releasing difficult to read or exhaustive articles that are ineffective at explaining matters to members of the wider society. This is therefore a relevant issue that should be addressed by the EIA, as it will prove not only helpful in building wider societal relationships, but will also allow for smoother internal procedures, as often, those involved in planning may not be skilled in this particular area either (Alton & Underwood, 2003; Garb et al., 2007).

The degree to which considerable policy transformation has been engaged in as a result of incorporating EIA mechanisms, as opposed to mere theoretical adoption, has been considered as resting on the extent of a state's democratic nature. The presence of processes for conflict resolution, the power of lobbying interests, the degree of democratic freedom and accountability structures are all relevant issues politically. O'Riordan & Sewell (1981) have determined that for citizens in states where there is much less potential to oppose outcomes, considerable reduction in information availability and closed procedures for decision taking, EIA's effectiveness will be diminished.

In summary, the major issue isolated in the reports on EIA within Thailand by ERI (1991), TDRI (1996), Ludwig (1987), and Rattanatanya (1997) is the ineffectual enforcement of EIA procedures. Such studies have revealed that the EIA does not work well at an internal, institutional level, nor does it run all the time, or provide assistance to smaller governance groups in order to develop and enact environmental policies. Additionally, communication between different governmental or external bodies is insufficient, meaning these groups do not work effectively together. Furthermore, those responsible for enacting legislation do not have enough staff,

resources, or appropriate materials to undertake the environmental policy enforcement in a successful manner. Finally, all levels of government appear unsuccessful in attempting to involve wider society in their projects. These are the major issues that provide a barrier to EIAs successful enactment in Thailand.

Due to internal structures and organisations, it has been hard for Thai culture to enact the core ideas of EIA policy and planning. According to Sanidvongse (1993), the Environmental Protection Plan aimed at reducing overall pollution was only brought in because environmentalism was seen as a relatively new problem. As Panich (1989) has suggested, further issues hindering successful enactment is the lack of skilled technicians and employees with the requisite environmental understanding. This absence of skilled workers is particularly an issue in the developing world, as such individuals with the required talent are rare. Additionally, as identified by Rattanatanya (1997), key organisational approaches, like the managerial negotiations which allow for collaborative plans to be drawn up and enacted by several different organisations, also remain rare.

The major groups involved in environmentalism have the necessary designs, but lack the capability to enact their plans. In some instances, the organisations have not gained the assistance of groups who would be able to enforce their legislation. A similar situation is present with urban development; governmental planning groups have access to the relevant laws, yet are unable to enact their designs aimed at minimising the untampered growth of urban areas, or mixed-land use (TDRI, 1996).

Closely related to the issue of private, public and municipal stakeholders working together are the concepts of entitlement and obligation, and these are currently unclear

in Thailand. The idea of community engagement has been accepted for a long time, but has been very seldom implemented in practice. There is such a lack of clarity as to what the government is expected to do, and what the individual is entitled to be involved in, that a state of stalemate has been reached, with one sector feeling that the other should be responsible for various things. Certain aspects of legislation in Thailand also contribute to this situation (Friend et al., 2016). As has already been mentioned, in Chapter 6, citizens often see this as being a sign of the Thai government shirking its responsibilities to them.

8.8 Corruption and Mismanagement

Corruption is conceptualised as a serious governance problem. As a NESDB senior officer opines "the undermining of democracy due to the lack of clean elections and politics in general, is one of Thailand's biggest problems."

The poor management of the EIA process is one of the main reasons for the lack of success it has achieved in Thailand, as is the prevalence of corruption. In many cases, EIA practice is perceived as unethical, and only the threat of legal action seems to bring this into any significant focus (Shepherd, 2012). Furthermore, Shepherd (2012) and a lobbyist both show that consultation with local communities is rare:

> *Many developers are holding discussions in private. Influential business sectors in Thailand typically forge strong ties with politicians as they aim to utilise bureaucratic powers for their benefits. (Lobbyist, 2014)*

Langkarpint (2000) also provides evidence of corruption by officials and agents, showing that power relations are being used to nurture personal interests without

consideration of the impacts on the environment or any public goods. This renders law enforcement and regulation almost impossible (Delgado et al., 2003; Leoseng & Zimmermann, 2005).

Corruption has caused Thailand to come under doubt regarding the nation's ability to achieve success and development (NESDP, 2012), also causing ineffective administration mechanisms and delays in processes. Furthermore, Thai society has become divided over conflict regarding collective benefits. The NESDP (2012) explains that, especially when it comes to policy, Thai corruption is extremely complex. The reason for this complexity is the lack of transparency and openness of the MNRE and Housing and Urban Development (MOI and BMA). Corruption and a lack of adherence to EIA regulations has arisen as a direct consequence of the Ministry's unethical exertion of authority (Yusuf, 2008). A high number of EIAs have been utilised as a mechanism for ignoring environmental issues whilst assuring the public and government agencies that everything is on track (King, 2009). Governments from the developing world often over-focus on immediate economic and political benefits along with profits, overlooking the need to protect environmental resources (Winbourne, 2002). However, as Kakonge (2013) points out, this puts the nation in a position where future environmental damage could be incurred and corruption can be perpetuated, worsening the mismanagement of the EIA process as this lobbyist appears to suggest, "many developers overlook environmental and public interests in favour of gaining bureaucratic authority by building relationships with key politicians."

Researchers such as Leoseng & Zimmermann (2005), Delgado et al. (2003), and Langkarpint (2000) have also provided evidence of corruption within Thailand's

public sector. This reduces the effective enforcement of laws and regulations significantly.

8.8 Conclusion

This chapter has provided an evaluation of the ways in which Thailand's contextual factors influence its implementation of EIA. The Thai EIA programmes typically are held back by a lack of effective legislation and managerial tools needed to do the job correctly. Uncertainties and insufficient enactment of the existing legislation, the overlapping of functions between separate agencies, and the dearth of qualified researchers and staff all characterise the EIA groups. Each of these contribute negatively to EIA's success as a nationwide project, as well as diminish the ability of the government to solve issues regarding the destruction of environmental resources in the country.

Political and socio-economic characteristics within the country's hierarchical governmental system, as well as the desire to grow the economy mean that major influence falls within the remit of particular groups. Environmental groups aiming to develop the effective supervision of natural materials are far less likely to receive high levels of resources. It is therefore very difficult for those affected by environmental policies to be heard by those dictating the policy at a central level.

CHAPTER 9 CONCLUSION

9.1 Introduction

This section summarises the findings of this thesis in the context of the research questions that underpin the study. It further underscores the remaining dimensions of the research subject that can be addressed by future researchers. The theoretical and policy implications of this study are additionally discussed.

Newly Industrialised Countries (NICs) with fast-growing economies, such as Thailand, need to deal with the conflict that exists between concurrently promoting environmental sustainability and economic progress due to public policy strains. How can such economies grow effectively while mitigating their negative impacts on the environment? Although central to national economic growth is the development of housing to achieve urban transformations, this process can negatively affect the environment. As a result of the growth of the urban population, there has been a simultaneous increase in the call for more housing, thus adding to environmental stresses. In order to deal with this issue, in 1981 the Thai government introduced EIA which aims to predict and prevent environmental problems arising from major development projects in order to achieve the sustainable development objectives. In this research, the EIA was referred to as the assessment of certain repercussions, both positive and negative, with regard to the environment, from various housing development projects and activities.

This research theoretically and empirically explored how the Environmental Impact Assessment (EIA) affects on condominium development in Bangkok, Thailand. The

research examined the relationship between environmental policy, economic progress, and new housing development in terms of how major agents for change in the city prioritise economic and environmental considerations in new housing development through EIA regulation. In particular, the purpose of this study is to investigate the decision-making process with regards to EIA policy-making and its implementation, as well as decision-making in relation to private housing development. The study investigated how agencies of the government and house building companies (and their representatives) interact and impose on one another; either to tighten or to loosen environmental considerations in house building.

This research examined the relationship between the state and the business sectors as perceived with regard to the impact of these as contentious or opposing interests concerning new housing developments. Furthermore, the research analysed the extent to which public policy, in particular the EIA, holds repercussions for new housing developments in the Thai capital, Bangkok, whilst looking at the issue with a corporatist approach and basing the investigation on the basis of the state-capital relationship. A qualitative interview approach was used as the main means of collecting data for this research, and both small and big development firms, EIA consultants, political figures, street-level bureaucratic individuals and associations related to housing development, as well as academics and NGOS, were interviewed.

The study found that the potential for friction between state agencies and developers has intensified, owing to increasingly strict regulations. Of course, it can be argued that tension over EIA processes diverges from other strains in state-capital relationships. Thus, insight can be gained from theoretical perspectives of the state in capitalist societies by understanding the interaction between the two (Dunleavy &

O'Leary, 1987). Taking insights from this literature, this thesis identified how the state impacts private housing development by regulating and directing new house building. It further question the extent to which state actions are influenced by private sector efforts to 'control' the state's influence. Thus, this research focused on the interplay between the interests of the state and private sector providers, viewed in terms of how these competing interests impact on the introduction of enhancements to environmental demands in new housing development. It therefore sought to understand both theoretically and empirically, the impact of EIA on developers' decision-making in new housing development, including the impacts on factors such as timing, costs, land-use constraints, amongst others, faced by developers. The study conceptualised new housing development as the outcome of interactions between a set of institutions and actors organised around processes for the promotion, production, marketing, and consumption of housing. These processes are socially created and dependent on cultural, economic and political contexts.

9.2 Summary of Research Findings

This study finds that although environmental concerns are rarely mentioned or featured in the decision-making processes of the private and public sectors, economic growth has nevertheless been a primary concern of national developmental objectives. All developers aim to maximise profits by minimising the turnover speed to capital. Thus, they seek to avoid the risk and uncertainty that occurs in EIA processes regardless of environmental concerns. EIA is not only a major hindrance to the housing industry and the country's economy, but it also presents limited efficacy in addressing environmental impacts caused by these developments. While EIA regulations aim to prevent environmental problems arising from major development

projects in order to reach sustainable development goals, the failure of its implementation has led not only to an inability to protect the environment and attain sustainable development goals, but also to promote the growth of the housing industry and the country's economy.

9.2.1 Summary of EIA Practice and Evaluation

While the concerns of a number of parties involved in the EIA process including developers, consultants, state agencies, and local communities generally coincide, some differences also exist between them. By virtue of the fact that developers possess large resources, they usually hold positions of greater power. Nevertheless, they too are compelled to consult with government bodies in order to obtain permission, as well as to reduce the likelihood of acquiring fines and being investigated. EIA consultants have a somewhat conflicting dual role in seeking to appease the developers who recruit them, while simultaneously contributing directly to a system which guarantees their long-term employability. Motivation and impetus on the part of government can vary greatly, and tends to be influenced by the level of concern exhibited by individual ministers, their locus of control and the specific participants engaged in the process. Ironically, it is those with the most capacity to affect change in terms of policy development and enforcement that have the greatest vested interest in retaining the current status quo. This is because they personally have contributed to devising the existing policies and procedures now being implemented. Various parties, including government, academics and the general public, who are more removed from EIA activities, are more disposed towards a transformation of the existing system, but they have less ability to shape policy development and its emerging outcomes (Wells-Dang et al., 2016).

The issues related to EIA mostly emanate from the fact that the key concerns of all groups taking part in the decision process of a project are not the same; high-ranking bureaucrats in the central government will give more attention to the promotion and progress of environmental consciousness across a number of problem areas, for example. Their goal is to inform the public about protecting their environment. On the other hand, local citizens and authorities concentrate more on local pollution problems and mitigation. Due to these differing aims, not everyone can be satisfied concurrently, leading to conflict. Thus, environmental issues remain unsolved due to clashing interest group objectives and multiple jurisdictional issues.

Large-scale housing development projects that have compromised the safety and well-being of local communities and environments have led to considerable disputes between communities and those in the private sector and government agencies. These disputes often stem from policy issues, ineffective environmental management regulations, inadequate systems for monitoring and assessing environmental impacts and a lack of consistency in how legislation is enforced. Thus, the public often calls into question, the capacity of the government to effectively oversee industrial development and to adequately remediate environmental issues.

EIA processes have been implemented in Thailand for the past ten years and the reliability and accuracy of EIA mechanisms has been enhanced by the prioritisation of scientific methods and forecasting techniques. Nonetheless, the attitude of stakeholders towards the system has failed to improve, particularly the attitudes of key decision makers. As such, the EIA system is most often perceived as another legal impediment that must be overcome in the project application process.

Practically speaking, it is difficult for EIA consultants or ONEP employees to ensure that the EIS system has been implemented properly until a formal approval submission has been made. The submitted EIS is then carefully examined to determine whether or not it has been adequately completed and whether or not it can be approved. The ERC has rejected EISs on the grounds that they were inadequately performed. In one particular case, ONEP identified the obvious shortcomings of a housing project and the EIS was subsequently denied approval. Once the contents were revised and resubmitted, the application was tentatively approved pending further assessment by ONEP. These issues can generate disputes between ONEP employees and other interest groups. For instance, in one case, ONEP oversaw the completion of the EIS which was subsequently denied approval by the ERC. These issues can also lead to significant delays and uncertainty in the EIA approval process.

Following the successful receipt of EIA approval, developers often experience the 'After EIA Effect', which often involves disputes with local residents who oppose the development project. If local residents oppose a development project, contentious disputes will arise and the project may be abandoned entirely. Thus, public consultation represents an integral part of the EIA process and the opinions of local community members and other interest groups should be sought through public meetings or surveys in order for prevailing concerns to be adequately addressed in the assessment. As mentioned in chapter 5, this aspect of the process is fundamental as strong public dissent can lead to significant delays, negative media attention and perhaps even project termination. As scholar D, who was interviewed as part of this study notes, "regardless of whether ONEP participates or not, such conflicts will become more frequent over time because of the increasing demand for high rise

buildings. Specifically, increases in the cost of land, as well as in the cost of oil, will create a greater demand for condominium blocks."

9.2.2 EIA Evaluation: Strengths and Shortcomings

This study found that the environmental policies of Thailand have relied on developmental assistance from international agencies such as the World Bank and thus, EIA processes are also subject to the influence of such international agencies. Thailand generally uses EIA as a part of its project planning which imitates the mechanisms advocated by international agencies. As a result of their entrenchment in extant mechanisms and tools from developed nations, this process is not amenable to change in other cultural, socio-economic, political, and environmental settings (Boyle, 1998; Kaosa-ard & Pednekar, 1995; Pimcharoen, 2001; Simpson, 2015; Suwanteep et al., 2016). This research finding converges with the finding of Langkarpint (2000), who argues that despite advances in the Thai legal system, there have been failures when it comes to modern environmental law.

Boyle (1998) claims that the problems posed to Western industrialised countries in resolving environmental issues are significantly smaller than the issues faced by Thai authorities. Despite having constrained political assets, the pressures for development and economic advancement are still as significant as in Western industrialised states. Furthermore, the political adoption and prospects for integration of environmental and sustainability demands is diminished, while demands for regulation from within society is generally less. Consequently, the political establishment does not give much weight to demands from an already frail environmental advocate community for change. Moreira (1988), Roque (1986), and Grindle (1980) have highlighted

particular factors that contribute to this situation, for example dictatorship, poverty, dominant economic and political concerns of a narrow section of society, poor access to data and knowledge, low literacy levels, as well as weak civil society structures.

This study found that Thai EIA practice is experiencing issues that arise ostensibly from the effective implementation of EIA and the administrative resources needed for this implementation, the insufficiency of specialty knowledge and understanding within certain agencies concerned with the environment, replication of administrative studies and the effectiveness of the bureaucracy of the state and its role when finding solutions to natural resource problems in Thailand. More importantly, the ERC has no total authority over decision-making because it has been interfered by political bodies, particularly in government projects. The study showed instances where ERC members have been removed if their views differ from the government, or disagreed with the project aims and objectives; in such cases, government representatives have substituted them (ADB, 2010; AECEN, 2010; Brewster, 2014; Wells-Dang et al., 2016)

The research findings demonstrate that EIA programme elements are not present, or when they were, they are poorly implemented. The extent to which the facilitation of EIA is ineffective is a central concern for the Thai state, primarily owing to the absence of political commitment, unclear legislation, an inflexible governance structure, inefficient allocations of authority, a lack of intercommunication between the civic and private realms, insufficient monitoring and implementation, and mechanism impotency. This research uncovered four primary issues: legislative issues, political commitment, institutional and organisation issues, and procedural issues.

With respect to the legislative issue, this research shows that Thailand's laws are vague, and as the regulations drafted by the EIA are poor they can be a challenge to understand and determine as well as to enact. The main challenge of EIA implementation stems from the absence of thorough guidelines for EIA as well as, to some degree, the assessment of EIA from the ERC. One of the disadvantages of the USA forming the basis for the EIA laws in Thailand is that the EIA guidelines are not available in specific form. The differences in the development trajectories of both countries, is not acknowledged in Thailand, thus the necessary limits and guides in the Thai context has not been provided and the capacity of ONEP is further weak. EIA consultants and developers utilise ambiguities to bias the information to their ends, and thus the choices made regarding EIA are founded on the sentiments of the ERC members, who comprise the main decision-making individuals for the EIA approval protocol. As a result, there has been unneeded expenditure on some significant issues, while certain crucial duties and demands remain poorly assessed and without the necessary funding to operate correctly. There has been a lengthier period with regard to the approval of certain projects from the unnecessarily lengthy time period taken to suggest alterations and additional research. As a result, there are generally a number of contentious debates among primary individuals within the administrative process of EIA both prior to, and after, the choice to reject or ratify has been taken. Such issues and challenges are generally impacted by inadequate regulations of the EIA, in addition to uncertain statements of policy regarding the sustainable development facilitated by various governmental bodies in the past. Economic progress, meanwhile, remains policy-focussed.

The study also finds that since there is a lack of political will to fully integrate EIA into the planning process, hence the difficulties in implementing EIA. The asymmetries in institutional power clearly reflect this (Tan, 2004; Bruch et al., 2007). Thai laws assign substantial powers to the executives by allowing the issuance of ministerial regulations, notifications and announcements, thus, the executives have the power to lay or reset the rules; if they cannot promulgate or modify legislation, they can still influence those overseeing the implementation of the regulations in a way that favours their interests as well as that of their supporters and constituents (Leoseng & Zimmermann, 2005). For example, in cases where certain policy decisions would adversely affect constituents, there have been convenient delays.

The interference of policy-makers in the day-to-day operations of environmental management agencies has resulted in the lack of priorities at the policy-making level, lack of confidence and inefficiency, as well as low morale in street-level bureaucrats (Kaosa-ard & Pednekar, 1996). Moreover, this research converges with Boyle's (1998) affirmation that the patron–client relationships among political and business leaders strengthen the power behind the economic development focus and make it more difficult for supporters of EIA. Notably, the findings of this study run counter to the study by Siedentopf & Hauschild (1988) which shows that the government might pay lip service to the need for environmental improvement, while barely pushing private companies to take any action. This study also found that the unstable political condition in Thailand also undermines the effective implementation of law, thus limiting the effective implementation of EIA.

This study additionally revealed that the limitations concerning EIA implementation in Thailand is linked to institutional problems. In key institutions, economic growth is

the main focus and thus environmentalism remains a secondary or tertiary issue. Limits in the organisational setting related to EIA systems in Thailand are due to the fact that EIA is not properly enforced. On the level of policy-making, the body operates poorly, and tries to help local governmental bodies and agencies in the enacting of environmental policies and plans. Indeed, among the relevant bodies, there remains an absence of inter-working, with agencies generally not helping one another. Sometimes, this is due to insufficient funds and staff shortages. Furthermore, both central and local government agencies lack initiative in encouraging public participation.

The study revealed that internalised institutional issues limit the effective implementation of EIA. These pertain to the enacting of EIA practice's legal demands, in addition to the insufficient numbers of practitioners who have the capacity and technical knowledge to correctly implement EIA practice in Thailand. The study further found inter-institutional challenges that obstruct the effective implementation of EIA, explicitly, overlapping mandates and jurisdictions were revealed to be a major limitation.

Presently, housing developers are required to gain twenty-two separate approvals from twenty-two different units in order to secure permission for housing development projects. This results in an unneeded multifaceted system. In Thailand's governmental structure, there is a top-down systemic decision-making process, whereby the authority of the government is separated into a number of different departmental and ministerial bodies within the central government's strata, and thus those ministries further down the 'ladder' are have less power and duties. Regardless

of the fact that the government has tried to stress the significance of an environmental agenda, enacting such a policy in law, this research shows, can be challenging.

An institutional issue in Thailand is the inability to order and manage several policies geared towards the upkeep of the environment, among both local governmental forces and the central government, in addition to the various sectarian concerns that exist in all strata. Therefore, the EIA process, and other tools utilised to make environmental plans and policies, generally becomes compromised due to political concerns in addition to mismanagement. This study showed that a related issue is that several legal mechanisms and stratagems devised by governments are wholly sectoral in their approach, as they do not take into account the existing connections such as those which exist among construction regulations, land use, rights of the local community, and the exploitation of local resources.

Consequently, ministries charged with administering an array of mandates initiate the laws. This study argues that without the necessary level of coordination between one government agency and another, contradictions and contentions can often arise, and these can mean an increase in the sectoral laws supported and pushed by various governmental agencies, in order to exacerbate issues of insufficient or bad implementation. Generally, the ongoing stress on the sectoral method has been a problem for EIA implementation in the country. Such results converge with Allison & Halperin (1972) concerning the fact that a persuasive character exists in bureaucratic politics which is subsequently able to affect public policy. The study also showed that issues exist between institutions and communities because access to information concerning projects and the environmental repercussions of projects remain significantly limited in Thailand. The public are not provided with published

information or EIA reports on an official basis, and such information is generally leaked or released in an unofficial way. EIA administrative frameworks have served to obstruct the sharing of information within governmental bodies, as has the bureaucracy's hierarchical structure, this study finds. It also finds that there is significant influence from developers given the poor alignment between the aims and objectives of the state. Developers have, therefore, subsequently attempted to mitigate and control conflicts as they perceive the system to be ineffective. They are of the view that only people within a state agency are able to mediate the requirements and demands of the organisations concerned. Thus, neither the private sector nor the regulatory authorities take environmental policy seriously when it comes to environmental management and sustainable practice.

This study also revealed processing issues as underpinning the ineffective implementation of EIA, due to the fact that it is a centralised process and hence concomitant with delays. This challenge, the study found, is exacerbated by the lack of public involvement in the approval process. It is argued that a more participatory approach could help to determine regional and local perceptions of a given housing project for developers. In cases where the local community rejects housing proposals, public protests have often ensued. Thus, in preparing the EIA, it is important that the experience of EIA consultants as well as ONEP members of staff are utilised. Some developers argue that because the EIA is based on the demands of local individuals, the EIA must highlight the general advantages that arise from such a project, rather than the impact on a few individuals. The study found that owing to aesthetic reasons or concerns about traffic, a majority of local residents do not wish to see a large-scale housing development in their local area.

This study found that the lack of monitoring mechanisms for EIA to assess the difference between predicted and actual impacts is also an underlying factor that explains its ineffective application. Further, there are very few avenues via which the suggestions made within a study can be stopped, or by which possible repercussions on developers can be enacted. Most developments post-approval do not undergo any monitoring programs and mitigation regulations. Developers have noted that such monitoring programmes have gone unimplemented after project completion. These results corroborate with the findings of other scholars such as Tan (2004) who notes that MONRE is generally perceived as a poor monitoring tool for environmental mitigation schemes. Despite the absence of capacity in every local governmental agency, new environmental agencies are especially accountable for enacting regulations and laws. Such new agencies are not well represented in the bureaucratic system, and therefore the private sector firms and the bureaucracy - due to such agencies' limited resources - are able to ignore them.

In Thailand, EIA is limited due to insufficient or irrelevant regulations and laws and resources for the implementation of such laws. Bad enforcement policy, as well as administrative duties being replicated, and poor understanding of certain issues are all pervasive. All these problems limit the efficacious enactment of both the bureaucracy's power, and its implementation, to solve existing environmental issues within Thailand. Further, due to the authoritarian nature of the Thai government as well as the hierarchal nature of Thai society, mission agencies do not have the clout to effectively criticise policies.

9.2.3 Impacts of EIA on New-Housing Development

The empirical findings provided the explanations of how the state impacts private developers through environmental regulating and directing new housing development. The study's results demonstrate that EIA is not properly implemented and it is argued that these shortcomings will persist and may continue to significantly delay and add costs to housing developments. Consequently, whether this is on a micro or macro scale, EIA has many impacts on new housing developments. For instance, the principal constraint of EIA is the stage at which the assessment transpires within the time-frame of the project. EIA occurs only after major decisions, such as site selection and/or investments have been made; this results in delays, suspension, major modifications to the project, increased development cost, and potentially even cancellation of the overall project. Developers are forced to amend project proposals, meaning that time is squandered, revenue projections are unattained and opportunities to grow a business are compromised. Failure to meet EIA stipulations means not only frustration for housing developers, but for buyers too, and for stakeholders such as contractors and financial institutions.

EIA also has impacts at the micro-level. Corporate strategies, development duration and cost, project characteristics, and the pattern of housing development are all sensitively impacted by EIA. Indeed, some individuals propound the argument that costs incurred are impacted by the EIA, and that the cost of housing is ascertained on the basis of the overall development costs (wherein delay and uncertainty stem from EIA complications). Therefore, housing prices may rise throughout the housing development processes as a result of complications from the EIA process. Consequently, end buyers are affected, and both buyers and investors could be subject

to the repercussions of housing project cancellations, potentially losing investments as a result of EIA rejection. With regard to the macro scale concerns, the housing sector, urban sprawl, and the economic growth of the country are negatively impacted by such complications.

This research demonstrates how EIA generates repercussions via the increasing cost of housing because of the imposition of controls. For instance, the need for green areas, and aspects such as the floor-areas ratio, along with CBD density restrictions, all impact housing costs. The extent of these impacts are differential, based on the location of projects.

9.2.4 The Responses of Housing Developers

How far the implementation of environmental regulation in new housing development reflects the priorities of the private sector and the state authorities? Carmona et al., (2003) corroborate the findings of this study by making the argument that developer choices are subject to varied pressures that result in multifaceted outcomes. This research discovered that such regulations must be considered in order to commission a new project. Many developers view EIA regulations as restrictive. Some are compliant while others are noncompliant. For example the study found that some avoid regulations by engaging in smaller projects, while others separate their projects into smaller ones. Some restrictions cause developers to change their aims or goals due to the costs potentially incurred by them. Conversely, a number of developers merely end their projects if profitability falls. A number of individuals admitted to being forced to abandon certain measures owing to vagaries in the EIA process.

EIA regulation avoidance is observable when some developers try to lower the magnitude of their projects so that restrictions incurred by the EIA are prevented. Therefore, they can commence their projects sooner. Generally, housing projects are separated into smaller stages to prevent unwelcome categorisation from the ONEP. Furthermore, those construction projects that operate in middle-market bands generally manage to sidestep EIA recommendation by lowering projects to fewer than eighty units or lowering the plot to fewer than ten thousand metres squared.

A change in project location can also take place if the monetary restrictions or chances for development are poor. Usually, CBD and BTS/MRT mass transportations areas are avoided. Projects can also be separated into many smaller projects or stages so they are able to prevent the imposition of EIA restrictions, and they may also do this if the demands of the homeowner or purchasers are not addressed in a single stage. Some projects commence prior to securing EIA approval - this is the “pre-sale” period. The cost of the land is not as high throughout this period but it usually increases once the approval has been granted. This is used as a selling point by a number of projects as it means increased buyer confidence, and therefore they believe the environmental impact of purchasing the land is less.

Sometimes, there are cancellations or delays in projects. This is because existing regulations assert that all constructions that are not complicit with the regulations established by the EIA shall not be permitted to build any other construction or provide permission for housing. In this situation, opposition begins after the project itself has begun, and so the construction of all houses is stopped imminently. This problem has resulted in several notable delays or cancellations of projects when the situation has worsened. Certain developers are also able to put off the launch of their

projects until they have gained EIA approval, which is referred to as 'complying'. Several development firms decide to put off their projects until approval has been granted, thus increasing potential purchaser trust and helping their firm.

Generally, the secondary and auxiliary costs and a longer time-frame are provided so that developers can look for different development paths or locations. Conversely, if profits fall, many development firms simply cancel their construction plans. Indeed, every one of the individuals asked said that they had been subject to a command to enact this line of action as a result of the vagaries concerned with the EIA process.

Responses and Perceptions of Housing Developers on EIA Regulations

The optimisation of profitability is the aim of all developers and worries and contentions over land and profits take precedence above sustainability problems, thus sustainability concerns are neglected.

Due to the ambiguities associated with the process, developers are usually unwilling to enact EIA processes and protocols. A number of developers conceptualise the EIA as a paperwork item that deals with housing permission, and they thus neglect environmental issues. Additionally, other developers regard it as a licencing document for operational mechanisms as opposed to decision-making processes. Thus, this research finds that EIA is deemed by developers to be an obstacle deliberately coined by bureaucratic forces. Developers further conceptualise EIA as a negative phenomenon because of the risks present in relation to development expenses and the restrictions imposed on them by law. Nevertheless, many think that, in the future, this will prove to be an advantageous aspect as they will be able to alter

the cost of their products and services. Additionally, EIA requirements, according to some, must be changed so that they mirror the realistic situation at hand better. Such persons have espoused the implementation of more transparent and relevant laws.

9.2.5 Lobbying Evidence

This study questions the extent to which the strength and content of state actions are influenced by private sector efforts to 'control' state influence. How far the framework for environmental regulation is a reflection of state sector imperatives or reflects the circumvention of the state by the private sector? This study shows that developers prefer a quicker and simpler process so that they can secure the approval of projects more easily and increase profits. The intention of EIA is not to expedite the development timeframe, but rather to guarantee that negative repercussions on the environment do not occur.

This research has demonstrated that too much influence from private firms and interests in the determining and formulation of EIA has negative repercussions for and in the market. This research provided several illustrations of instances where developers have demanded that the NEB and their government change EIA laws in accordance with business interests and the growth of construction sites. Yap (2002) corroborates these findings, and has suggested that many Thai ministers hold close relationships with large private firms and firms within the real estate sector. Ministers receive finances from both sectors, and therefore big development firms are important funders of political parties and interests, ensuring that their agenda is reflected in government policy. The conclusions drawn by Sheng (2002) and Keivani & Werna (2001) are contended by Yap (2002), whose results do not uphold the conclusions that

state agencies find it too difficult to formulate new laws and regulations that do not serve the housing sector. Yap argues that public policy is tangibly impacted by funding from the private sector. This argument is corroborated by the data acquired in this research, in the context of Thailand. Indeed, private-sector individuals have an immediate impact on the policy of their government and can change policies to permit corporate interests to impact both governmental policy and governmental bodies. It is claimed that Thailand's business sector has forged strong ties with the country's politicians. Langkarpint (2003), Delgado et al. (2003), and Leoseng & Zimmermann (2005) all argue that the purpose of this is to use bureaucratic powers to nurture their own interests, without consideration of the potential impacts on the environment. There have been instances where corruption has been evidenced by the public sector. This poses a predicament since corrupt officials or agents may render law enforcement and regulation almost impossible.

A barrier to highly harmonised and organised initiatives being introduced by policy makers, in order to meet broad aims over a long duration, is both public and private bodies' asymmetrical access to information. Furthermore, this is the case if a company's for-profit objectives are at odds with the political aims of a project, with the former commonly overriding the government's intentions. Nevertheless, in the contemporary period there has been more positive collaboration between public and private bodies in order to formulate and introduce policy initiatives, particularly as private sector involvement has grown. Prior to the People's Constitution in 1997, particular aims were pushed largely by private real estate bodies in Thailand. Since this time, however, and as a consequence of political and economic developments, the interests of various sectors of society and groups have been pushed further.

9.3 EIA and Its Implications for Thailand's Sustainable Development Goals

This research shows that the lack of cooperation between planning systems, housing development, and the EIA system in Thailand has engendered several implementation problems with adverse effects on development costs, national competitiveness, quality of life and the economy.

The United Nations (1997) underscores the importance of achieving sustainable development through the coordinated and interrelated efforts of environmental security, and social and economic development. Improving the wellbeing of every individual is the main aim of such development, while equilibrium between environmental, economic and social factors over a long duration is the ultimate aim of sustainability. Assessment of such factors should be included in every aspect of government activity.

The perceived consequences of development over a longer duration should also consider urban development and strategy, particularly when social and environmental issues may be in conflict with the economic focus in the context of the city. Thus, sustainable development particularly needs to deal with this issue. A genuine consideration of sustainability is possible through the mechanisms of EIA, with the consequence that it has indeed become more widely adopted in this regard. In order to assess whether sustainability conditions are being met by a scheme, EIA will become increasingly important.

Social, economic, and environmental factors may not be straightforwardly distinguished, as the varying aspects of real estate's sustainability may include factors that can be interlinked and transcend classification. A degree of rationality is required in relation to the perception that mutual benefits are realised through sustainability, as suggested by EIA. Marcuse (1998) perceived that fiscal reallocation, power problems and various disagreements and conflict can all arise through the implementation of sustainability. For example, various parties may have genuine and significant disagreements about the balance between social justice and environmental sustainability. Environmental considerations or social equality may not go hand-in-hand with healthy homes, and social, health and/or environmental benefits may be undermined by cost-effective real estate schemes. Meanwhile, fiscally accessible housing may be more difficult with the high building costs resulting from construction regulations, as detailed in chapters six and seven. Furthermore, citizen's assent, infrastructure or plot accessibility and various political obstacles may hinder new-build home schemes. Thus, rather than simply focusing on sustainability – regardless of its importance – it is important to remember to find a balance.

Economic advancement and environmental security requires a compromise to be made. The environmental impact of construction schemes, as well as an advantage-disadvantage assessment for both the construction scheme and the local environment, should be factored in to the EIA to reach the ideal balance and exercise the best option. Different political factors, and social and economic backgrounds, alongside specific schemes, will all influence the best decision in a particular situation. Furthermore, the advantages for citizens and those following, as well as the delivery

of sustainable economic progress and a secure environment, can all be produced from EIAs that are properly implemented and administered (Abaza, 2004).

Producing stable and promising policies and legislation, however, is difficult for Thailand, due to the political and economic insecurity that has afflicted the country. As it has in other advancing states, it has undermined Thailand's potential. This political instability may be prolonged and yet the effective implementation of legislation requires democratic transitions and a stable political system.

9.4 Theoretical Implications of the Research Findings

This research has primary focused on the interplay between the interests of the state and private developers, viewed in terms of how the competing interests impact on the introduction of enhancements to environmental demands in new housing development. How do the empirical findings of this research relate to the main theoretical approaches to the study of state-business relationships? Corporatism has a definite influence on independent business organisations, in the form of their relationship and interactions contributing to important policy-making. Additionally, an equilibrium of shared control, by the business and state is accentuated by corporatism. The Thai pervasive patron–client relationships between state and business leaders perpetuates the skewed focus on economic development as opposed to environmental considerations, making it difficult for EIA proponents to achieve their conservation goals. This has been the case in Thailand, according to Laothamatas (1988), who states that corporatism played a pivotal role in the 1970s. However, while economic policies have benefited from corporatism, environmental policies have withered. The thesis concludes that the main weakness of EIA in

Thailand pertains to a weak central state. The Thai state is easily influenced by business interest groups, since it lacks the institutional power, political will, weak corporation within and between organisations, and organisational structure and resources. These factors have contributed to ineffective EIA implementation in Thailand.

The EIA has been affected by the relationship between not only the administrative tools and the policy scheme, in the form of a conducive partnership, but the state and organisational professionals. Prevalence, in the housing sector, originated early as a result of the combination of corporatism and politico-bureaucratic segmentation of environmental issues. Governments, nevertheless, benefited from this type of neo-corporatism, due to the nature of its original societal and political environment (Crepaz, 2007; Downes, 2010; Hukkinen, 1995; Pape, 2005; Scruggs, 2001; Szarka, 2007). Additionally, public awareness, increased international partnerships and environmental concerns have contributed to improving strategies. However, this study argues that systems in the current EIA in Thailand are being disregarded for prompting a prolonged rate of environmental improvement. The study believes that the business elites are exercising unequal control.

The environmental authorities have permitted vast opportunities for discussion, by including representation from many organisations, augmenting environmental processes and allowing influential peoples to retain their areas of control. Neo-corporatist interventions may have been responsible for these factors. The EIA for housing development projects, however, has proven more complicated, possibly because of the tiered nature of its management. The application of EIA policy has been complex. As Schmitter (1975) has proposed, corporatist negotiation is ultimately

unavoidable, due to a mixture of control and influence on EIA implementation used by the business sector, their financial centrality and preferences to accumulate manufacturer interest. In the case of new-housing, it is hard to find an escape from systems of interest representation, when in certain contexts, conflicting expectations prevent the EIA in Thailand from being fulfilled. This study argues that the EIA requires increased specificity in its implementation however the business sector and their associations serve as an obstruction.

9.5 The Policy Implications of Research Findings

Glasson et al. (2005) and Awakul & Ogunlana (2002) claim that since the EIA assists in informed decision-making and therefore reduces the effort and complication involved in the decision-making process, it is considered a helpful evaluative tool when it is implemented effectively. In terms of stakeholder relations and cost-reduction, EIA does provide benefits in this area, as well as in the long-term (Abaza et al., 2004). EIA has the potential to bring positive impacts to the people of today and tomorrow by promoting sustainable economic growth and a cleaner environment, but only when it is managed effectively. EIA resolutions intend to stop environmental issues, according to the research, stemming from large-scale development projects so that they are able to attain their developmental objectives for sustainability. Nevertheless, as a result of unsuccessful implementation, EIA remains a preventing factor for the housing sector as well as for the economy of Thailand as a whole. Furthermore, it generates a negative impact with regard to tackling developmental environmental repercussions. It is therefore concluded that the EIA system requires reform.

As a result of globalisation and the growing competitiveness within global markets, nations are looking for more efficacious means, tools and systems. Indeed, they are motivated to look for and begin reforms which impact the state's relationship within a given market. A country's economic advancement can be detrimentally impacted by the lack of consideration for environmental factors during planning, as evidenced during the speedy economic progress of Thailand. Consequently, in relation to the quick economic advancement as well as the environment of Thailand, crucial consideration needs to be given to sustainable development.

As a result of this, both the reformation of EIA regulations and the repercussions of such a measure with regard to dealing with imbalanced economic growth and environmental sustainability need to be considered by Thailand's government. Veronez & Montaño (2015), as well as Bond et al. (2015) determined that technical efficiency is a major way by which EIA procedures can be successfully and usefully enhanced. Furthermore, Suwanteep et al. (2016) explain that this is due to a well-prepared EIA plan being particularly important for the application and positive results of the EIA process.

While the EIA system has been implemented in Thailand for almost 40 years, it is still concomitant with notable limitations and gaps. In Thailand, EIA issues are not merely legal issues, as issues specific to technological processes and levels are also relevant. So that the EIA processes can be improved and made more proficient, the Thai government needs to: i) encourage political will; ii) amend EIA regulations to enable the efficient execution of policy at every level; iii) create a code of practice and a precise guideline for all stakeholders; iv) strengthen institutional capacity; and

v) enhance regulatory procedures - particularly monitoring and public participation. This is explained further below:

Encourage Political Will

Political impetus and solid guidance from political figures is necessary for EIA and sustainability to be promoted and implemented efficaciously, as they can also provide effective planning and calculation that is crucial to making far-reaching alterations. In terms of implementing EIA and supporting policies for sustainability, dedicated state bodies with adequate authority to act should be formed. To facilitate cooperation, the particular bodies of concern should also be organised in harmony.

Amend EIA regulations to enable efficient execution of the policy at every level

The lack of mutual understanding concerning EIA and environmental issues among policy makers, including ONEP officials and government authorities, and other relevant stakeholders, has undermined Thailand's environmental efforts. To reverse this trend, it is imperative to improve communication through policy dialogues and administrative reforms, as a strategy for boosting the capacity of the administrative system. All guidelines on EIA must be streamlined and concise. It is also imperative that local government is afforded the agency to oversee its own operations. Government must also develop unambiguous criteria concerning the roles and responsibilities of authorities.

Local groups, government sectors and bodies, NGOs and private bodies should all cooperate and be incorporated into the planning and enacting of EIA drafts, legislation and approaches, as a means of improving governance. Planning and approaches to building more real estate necessitates a broad and free debate. As Pressman & Wildavsky (1973) suggest, in order to achieve the successful delivery of a policy, implementers need to be governed by guidelines that set clearly comprehensible duties and establish a tiered system of control and must be ensured access to adequate resources.

Create a code of practice and a precise guideline for stakeholders

It is proposed that an annex in code of practice and guidance handbook for EIA should outline relevant legislation and policies particularly in Thai context. Included in any updates should be a review of the timeframes of the EIA process, and the list of issues to be considered during the scoping phase should be added to. For example, additions might include something on the scope and timing of an EIA, the suggestion of alternatives to featured projects, who should be involved with an EIA, stakeholder engagement issues, health & safety, risk assessment, etc. For every EIA action and scheme, the particular local environment should be considered and factored into the scheme's preparation and formulation stages, by means of an accurate and detailed code of practice. So that certain aspects of the scheme and the relevant legislation and policies are clearly known to stakeholders - for example EIA experts, scheme managers and planners, ONEP and ERC - sector manuals and codes of practice would be particularly instructive, primarily for the strengthened EIA method. Systematic frameworks must also be established to facilitate effective EIS reviews and ensure best practices; the introduction of standardised criteria will also mitigate subjectivity.

Further, in order to be effective, multi-stakeholder consultants should be encouraged in EIS reviews.

Strengthen institutional capacity

The complete normalisation of EIA within public and private bodies, as well as its ring-fencing against government alterations and political whims, is crucial to its successful adoption over a greater period of time. To improve EIA effectiveness for Thailand at both the national (NESDB, MOI, and MONRE) and local (BMA and local administrative) levels, coordination must be encouraged from a wide range of actors including the private sector. Civil society can also play a regulatory role by encouraging and advocating for sustainable approaches with regards to the urban environment. Public participation is also important as there is the importance of having a firm grasp of the issues at stake in order to pave the way for sustainable urban development.

These stakeholders' approaches should be influenced by sustainable development notions, as should legislative and political debates. Emphasis must be placed on capacity building via in-house training and staff recruitment especially for ONEP. ONEP must support and encourage each province via local authorities that would correspond the legislative and administrative framework of the central government, to reduce conflict interests and concentrate on the implementation. Local authorities must also boost their administrative capacity and promote environmental sustainability. Such efforts would encourage EIA staff to better perform their mandated duties. It will further enhance joint efforts between ONEP and other authorities. Planning funding, the initiation of education and research initiatives, state

planning, sturdy regulatory foundations and the transformation of governance infrastructure should all be implemented in this regard.

Enhance regulatory procedures - particularly monitoring and public participation

Through engaging in the different processes, option exercising and scheme development can both be influenced by ordinary citizens' recommendations. Comprehending awareness of environmental issues within a local community, as well as their desires and requirements, rests crucially on citizen-stakeholder and local engagement. When potential beneficiaries, stakeholders, and local citizens feel jointly invested in a proprietorship, a scheme's feasibility is enhanced. Societal values, principles and culture should also be taken into consideration. Nadeem & Fischer (2011), Elling (2005), and Au & Lam (2005) have all suggested that successful citizen engagement is of greater likelihood when the evaluation of the potential consequences of a scheme involves the engagement of a wide collective of citizens.

Observation to guarantee compliance, as well as continued administration of a project, should both be informed by EIA reappraisal or the monitoring of information. This can include the imposition of legislation, coordination on data with other bodies relevant to the environment and its protection, local administrative organisations' regulation of private companies acting on their behalf, alongside general improvements in observation. The improvement of environmental administration rests on the crucial aspects of ensuring compliance and execution post-scheme, which is something that governments ought to be aware of. The assessment of the usefulness

of regulatory initiatives and precision of estimations - based on the recognition of alterations via auditing - is an aspect of using enhanced observation information.

To ensure effective public participation in the EIA system, monitoring must be overseen by ONEP staff. At both the scoping and the review stages in the EIA process, it is imperative that multi-stakeholder consultations are held in order to capitalise of the specialist knowledge of each participating stakeholder. Further, stakeholder feedback and concerns must form an integral part of the EIA report.

Government must also invest in boosting the capacity of the mentoring system which can serve as a support system for all institutions concerned with EIA implementation. Such a system can assist EIA staff to perform their responsibilities more fully and effectively.

The ONEP and permitting agencies should follow up and conduct site inspections during both construction and initial operation to verify whether the developer has implemented the mitigation measures described in the submitted EIS, as well as monitor predicted environmental impacts. These inspections are also essential to make sure that all environmental conditions have been followed. Thus, the EIA report should be an integral part of the licence documentation and should be available to the inspectors during their frequent inspection visits.

Consideration of the above recommendations and effective implementation of recent amendments would promote good practices within the Thai EIA system. These measures would strengthen the EIA process and ensure environmental protection not only in Thailand but also in other countries to overcome challenges facing the EIA system and promote sustainable development.

9.6 The Strengths and Weaknesses of The Thesis

The most notable strength of this thesis is that it investigates the extent to which the implementation of EIA in new housing development reflects the priorities of the private sector or those of national-local state authorities. The study also sheds light on the theoretical discussion concerning the extent to which environmental regulation can be conceptualised as a reflection of state interests. Despite the large number of studies on EIA and the implications for environmental protection, there is a lack of studies that consider the impact on housing development. Due to the high potential for large wealth transfers and amenity creation, this is an important area of research for policy analysts, public authorities and other officials concerned with urban growth and development. Another strength of this study pertains to its controlled design. The participants were selected according to the technical knowledge using snowball sampling. The use of elite interviews further enabled the researcher to interview first-hand, participants of the processes under investigation. Overall, despite a variety of EIA constraints, Thailand, as one of the Newly Industrialised Countries, has achieved considerable progress in establishing an EIA system.

Some limitations of the study must however be noted. Firstly, the use of in-depth qualitative interviews and the small number of research participants limit the generalisability of the research findings beyond the research sample. The issue of small sample size is difficult to overcome in this kind of study although increasing the sample size would enable a broader generalisation of the study (Webler & Tuler, 2006). Further, the procedural effectiveness approach which is the focus of this thesis has inherent limitations that restrict its scoping to elements directly linked to the content of the studies. Thus, important aspects of the decision-making process and,

therefore, of EIA effectiveness, as already pointed out by Bond et al. (2010) and Lima and Magrini (2010), are not effectively incorporated in the study. Finally, the results of this study are specific to the Thai context and thus do not account for the nuances of other cases.

9.7 Recommendations for Future Research and Practical Applications

The environmental governance techniques and methods in Thailand and other Asian developing countries stem from other nations, but specifically, Western, developed countries despite the divergent political, institutional, cultural, social and economic nuances of these countries. The recommendation is made, therefore, that the subject of environmental governance within developing countries in Asia demands further in-depth research and investigation.

Additionally, the understanding of the subject and the collation of more information and knowledge on other nation's practices may be an efficacious means of highlighting the benefits and shortcomings of the EIA system, thus boosting its efficacy. To ensure that EIA processes become more effective, such stages are suggested. Meanwhile the actual processes and practices taking place also demand further investigation and research to ensure long-term environmental sustainability, and public participation. Indeed, there needs to be a collective awareness by local residents in proximity to developments, as well as an overall systemic change.

Finally, Housing developing is concomitant with overlapping regulations and thus there is the need for a more nuanced model of the housing development process. This will help attain a better understanding of the interactions between developers,

regulators, and other stakeholders and the way these interactions impact the timing of development activities. Lastly, since the environmental regulation of land use changes is stage-managed by several levels of government, important questions about the interactions between regulatory agencies and the problems associated with coordination challenges emerge.

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APPENDIX 1 LIST OF INTERVIEWEES

No.	Data Sources Name of Organizations/Units	Citations	Interview Date
Associations			
1	Thai Condominium Association (TCA)	Thai Condominium Association representative	16/11/14
2	The Thai Real Estate Association	Thai Housing Association representative	18/12/14
Developers			
3	Big Developers (Public Limited Company, PLC)	Big developer-A	08/07/14
4		Big developer-B	21/10/14
5		Big developer-C	12/07/14
6		Big developer-D	15/09/14
7		Big developer-E	03/07/14
8		Big developer-F	17/07/14
9		Big developer-G	13/09/14
10		Big developer-H	29/10/14
11		Big developer-I	15/07/14
12		Big developer-J	22/08/14
13		Big developer-K	06/08/14
14		Big developer-L	09/06/14
15	Small Developers (Company Limited, Co, Ltd.)	Small developer-A	15/06/14
16		Small developer-B	25/08/14
17		Small developer-C	13/10/14
18		Small developer-D	21/07/14
19		Small developer-E	20/07/14
Lobbyist			
20		Lobbyist	15/12/14
Politicians			
21		Politician-A	23/11/14
22		Politician-B	14/12/14
National Government Agencies			
23	National Economic and Social Development Board (NESDB)	NESDB Senior Officer	02/12/14
24		NESDB Street-level Officer-B	14/11/14
25	Ministry of Natural Resources & Environment (MONRE)	Environmental authority senior bureaucrat	07/12/14
26		Environmental authority street-level bureaucrat-A	11/11/14
27		Environmental authority	26/11/14

		street-level bureaucrat-B	
28	Ministry of Interior (MOI)	Planning authority senior bureaucrat	29/11/14
29		Planning authority street-level bureaucrat -A	17/10/14
30		Planning authority street-level bureaucrat-B	15/08/14
31		Planning authority street-level bureaucrat-C	16/08/14
Local Authorities			
32	Bangkok Metropolitan Administration (BMA)	Local authority senior bureaucrat	23/10/14
33		Local authority street-level bureaucrat-A	04/08/14
34		Local authority street-level bureaucrat-B	14/08/14
35		Local authority street-level bureaucrat-C	02/09/14
36		Local authority street-level bureaucrat-D	05/09/14
37		Local authority street-level bureaucrat-E	14/09/14
EIA Consultants			
38		EIA consultant-A	18/10/14
39		EIA consultant-B	25/10/14
40		EIA consultant-C	07/09/14
41		EIA consultant-D	11/10/14
NGO			
42		NGO	22/11/14
Experts/Scholars			
43		Scholar-A	06/11/14
44		Scholar-B	20/11/14
45		Scholar-C	09/12/14
46		Scholar-D	06/10/14

APPENDIX 2 INTERVIEW QUESTION GUIDES

Emphasis	Question Guides
Central Question	• How far does the State act in an independent manner, and so influence the actions of Capital? • Who takes the lead in determining environmental inputs into new housing development? State➔Business • How does the state impact on private housing development through regulating and directing new house building? o How far does the implementation of environmental regulation in new housing development reflect the priorities of the private sector or those of national-local state authorities? o How far does public policy, especially as regards environmental regulation, impact on new house building in Thailand's capital city? Business➔State • How strength and content of state actions are influenced by private sector effort to control state influence? o How far does the framework for environmental regulation reflect a circumscribing of the role of the state by the private sector?

Question Guides for Housing Developers

Question Set 1 – Decisions regarding the building of new developments and what impacts on decisions making

Nature of the company and development projects

- How would you describe company's;
    - organizational structure (e.g. ownership and financial structure)?
    - corporate objective (e.g. maximize profit, market share, or public image)?
    - operational characteristic
        - when did entry to industry?
        - areas of operation?
        - target groups?
- What are the key considerations that determine the type of housing unit or combination of housing units you look to build?
- What are the key considerations determining the size of development (e.g. size of projects, units, price range, and land) and cost of projects you propose?
- What are the key factors that company look for in a site for the development?
    - Does company operate in any specific area (location and site attributes)? Why?
- Is there any other the key considerations that determine characteristics or combination of housing project, such as social facilities retail outlets or public institutions? If yes, how and why?

Experience of the company in putting forward project proposals

- How far is there diversion from the original proposal? And what is finally built? And what are the key factors that bring about such diversions?
- How far is the final outcome of the development process decided by the availability of finance? Or by government regulation? Or any other factors?
    - Which are the most influential regulations? Why?

* The follow-up questions on the initial question are critical, and I cannot determine what these are until I know the first answers.

Question Set 2 – Whether company have had any role in seeking to have the EIA legislation/regulation changed

Business perspective of environmental regulation, particularly Environmental Impact Assessment (EIA)

- What do you think about the environmental legislation? And EIA?
- How would you describe the relative importance of environmental regulation to new-housing development? (in the past and present)
    - How far did you take this issue in consideration of new project?
- Do you think you would hold that view before the EIA regulation was changed in 2005?
    - Given what you thought in 2005 did you seek to influence government - either directly or through business associations - as regards what the regulation specified?
    - Since its enactment, have you made any further attempts to have any aspect of the regulation changed?
- What do you think about the ways in which the EIA regulation has most impact on your business? Is it effective?

Impact of EIA on developer's decision-making in new housing development

- How are environmental considerations in the company's housing development influenced by public policy?
    - Are there company's decisions which are influenced by legal requirements for consideration of proposed project?
- How far did the finding of the EIA report impact on your decision in developing new-housing projects characteristics? (e.g. changing size of project, location, design, materials, production practices or service for new dwelling)
    - Is the public consultation and participation influenced in decision-making?

How company respond within a regulatory framework

- How does company engage with public officials before submitting proposals in order to secure maximum favour for a proposal?
    - Does the company take any action on the environmental policy? Why?
        - What do the company do? And how?

    - To what extent have result of the EIA been used in company decision-making?
- How does company engage with officials after a submission is made to mitigate requirements they do not like?
- What characterizes the compromises does company prefer to make in order to secure official support?
- What does company see as the bottom-line as regards deciding whether a project is tenable?

How company seek to determine what regulatory framework is

- How far did company or any relevant organizations engage with politicians, officials or others to have legislation framed in a way they find less burdensome whether lobbying against the introduction of the regulation or lobby to have the regulation changed in any way?
- How effective any such lobbying has been?

** Each informant was asked to name other individuals that they think might be useful sources of investigating further information.

Question Guides for Government Agencies (Senior Bureaucrats)

Question Set 1 – Policy formulation and implementation

Nature of organization

- How would you describe your organizational structure and operational characteristics?
- How would you describe your role and areas of responsibility within your organization?
- Could you explain your experience with policy processes and implementation?

Policy formulation and implementation

- What did government officials seek to achieve in drawing up (or implementing) EIA procedures?
    - What are the EIA regulation's goals, concepts, and processes?
    - Have these objectives changed over time; and, if so, why is this?
- In what ways has the EIA policy's environment (e.g. social, cultural, political, and economic) affected its process, implementation, and results?
- How was the EIA regulation planned and developed?
    - What compromises, if any, were made during EIA planning and development?
        - Were those compromises sensible in view of the final EIA design?
- How far are the EIA regulation processes and system implementing as planned? If not, how and why?
    - Are there factors affecting the responses of implementation agencies?

Question Set 2 – whether the framework within which decisions are made is so 'constructed' as to favour one set of decision agents (viz. private sector builders)

Role of state agencies

- What is your nature of responsibilities within housing sector?
- How would you describe your role and/or organization in determining impacts on private housing development through setting and/or implementing the environmental policy framework, regulating and directing new-house building?

Role of business

- Was there any participation of business in policy making? Which process? and How?
- How do you see the role of business in the environmental policy making and implementation?
- How competing interests in the housing development process were listened to and their views taken on board in policy outcomes?

How the state responds within a regulatory framework

- Do you hold or have you ever held office in a business organization?
- How often do you have contact with the following interest groups? (e.g. housing industry, real estate and construction associations, finance institutions, or environmental organizations)?
    - How would you describe your relationship with those interest groups?
- How far did building company or any interest groups attempt to engage with politicians, officials or others to have legislation framed in a way they find less burdensome whether lobbying against the introduction of the regulation or lobby to have the regulation changed in any way?
- Did the state act as a neutral arbiter or did it favour particular outcomes, and if the latter, why?
- Why has the EIA regulation changed over time (e.g. in 1992, 2005)?
    - What was the nature of the lobbying that occurred at that time?
    - Was it effective?
    - Has there been ongoing lobbying since it was approved, etc.?
    - How effective any such lobbying has been?

* Each informant was be asked to name other individuals that they think might be useful sources of investigating further information.

Question Guides for Government Agencies (street-level bureaucrats)

Question Set 1 – Policy formulation and implementation

Nature of organization

- How would you describe your role and areas of responsibility within your organization?

Policy formulation and implementation

- Could you explain your experience with policy processes and implementation?
- What did government officials seek to achieve in implementing EIA procedures?
    - What are the EIA regulation's goals, concepts, and processes?
    - Have these objectives changed over time; and, if so, why is this?
- In what ways has the EIA policy's environment (e.g. social, cultural, political, and economic) affected its process, implementation, and results?
- How was the EIA regulation planned and developed?
    - What compromises, if any, were made during EIA planning and development?
        - Were those compromises sensible in view of the final EIA design?
- How far are the EIA regulation processes and system implementing as planned? If not, how and why?
    - Are there factors affecting the responses of implementation agencies?
    - Is there complete understanding of the objectives to be achieved and tasks to be performed? Why?
        - Do these conditions persist throughout the implementation process?
        - Do you need to depend upon other agencies for policy implementation? or if other agencies must be involved, how important are that the dependency relationships?
- How effective is EIA as a tool in protecting the environment and preventing environmental deterioration?
    - Are adequate time and sufficient resources made available to the programme? If no, why?

- Is the required resources available at each stage in implementation process? If no, how and why?

Question Set 2 – whether the framework within which decisions are made is so 'constructed' as to favour one set of decision agents (viz. private sector builders)

Role of state agencies

- What is your nature of responsibilities within housing sector?
  - Is it only on new-house building or any other types related to housing?
- How would you describe your role and/or organization in determining impacts on private housing development through setting and/or implementing the environmental policy framework, regulating and directing new house building?

Role of business

- Was there any participation of business in policy implementation? and How?
- How do you see the role of business in the environmental policy making and implementation?
- How competing interests in the housing development process were listened to and their views taken on board in policy outcomes?

How the state respond within a regulatory framework

- Do you hold or have you ever held office in a business organization?
- How often do you have contact with the following interest groups? (e.g. housing industry, real estate and construction associations, finance institutions, or environmental organizations)?
  - How would you describe your relationship with those interest groups?
- How far did building company or any interest groups attempt to engage with politicians, officials or others to have legislation framed in a way they find less burdensome whether lobbying against the introduction of the regulation or lobby to have the regulation changed in any way?
- Did the state act as a neutral arbiter or did it favour particular outcomes, and if the latter, why?
- Why has the EIA regulation changed over time (e.g. in 1992, 2005)?
  - What was the nature of the lobbying that occurred at that time?

- Was it effective?
- Has there been ongoing lobbying since it was approved, etc.?
- How effective any such lobbying has been?

* Each informant was be asked to name other individuals that they think might be useful sources of investigating further information.

Question Guides for EIA Consultants

Nature of organization

- Could you explain your organizational structure and operational characteristics including experience and location of projects?
- How would you describe your role and areas of responsibility?
    - Do you specialize in any specific type of projects (e.g residential, industry, or commercial)?
- What are the key factors that building company look for in EIA Consultants for making the EIA report?

The EIA and EIA report

- What do you think about the EIA registration?
    - Is the EIA system (e.g. the EIA requiremnets, process, legal provisions, and processing time) based on clear and specific regulation? Why?
- What do you think about the key considerations that determine quality of EIA?
- How far do the project proponent respond to the EIA reports and to the points raised during the process?
- How far are the financial costs and time requirements of the EIA system acceptable to those involved?
    - Do the financial costs and time required to complete the various stages of the EIA process exceed those specified? How and why?

Impact of EIA on the development project

- How would you describe the relative importance of environmental regulation to the development, particularly housing sector?
- What do you think about the ways in which the EIA regulation has an impact on business? Is it effective?
- How far is the finding of the EIA report determined on the building company's decision outcome of the development process?
- How far is there diversion from the original building proposal? And what is finally built? And what are the key factors that bring about such diversions?

How respond within a regulatory framework

- What do you think about the changes of EIA in the past (e.g. 1992, 2005)?
    - How did it changed?
    - Since its enactment, have you seen any attempted from business to influence government either directly or through business associations?
        - Does the company take any action on the policy? Why?
        - What do the company do? How?
- Base on your experience and knowledge, have you represented proponents or any relevant organizations to engage with politicians, officials or others to have legislation framed in a way they find less burdensome whether lobbying against the introduction of the regulation or lobby to have the regulation changed in any way?
- How effective any such lobbying has been?

* Each informant was be asked to name other individuals that they think might be useful sources of investigating further information.

Question Guides for Scholars and NGO

Nature of organization

- Could you explain your organizational structure and operational characteristics including experience and location of projects?
- How would you describe your role and areas of responsibility?
    - Do you specialize in any specific type of projects (e.g residential, industry, or commercial)?

The EIA and EIA report

- What do you think about the EIA registration?
    - Is the EIA system (e.g. the EIA requiremnets, process, legal provisions, and processing time) based on clear and specific regulation? Why?
- What do you think about the key considerations that determine quality of EIA?
- How far do you respond to the EIA implementation and to the points raised during the process?
- Have you participated in any EIA process? How?
    - Did you agree or disagree with the result or feedback? Why?

Impact of EIA on the development project

- How would you describe the relative importance of environmental regulation to the development, particularly housing sector?
- What do you think about the ways in which the EIA regulation has an impact on business? Is it effective?

How respond within a regulatory framework

- What do you think about the changes of EIA in the past (e.g. 1992, 2005)?
    - How did it changed?
    - Since its enactment, have you seen any attempted from business to influence government either directly or through business associations?
        - Does the company take any action on the policy? Why?
        - What do the company do? How?
- Base on your experience and knowledge, have you represented proponents or any relevant organizations to engage with politicians, officials or others to

have legislation framed in a way they find less burdensome whether lobbying against the introduction of the regulation or lobby to have the regulation changed in any way?

- How effective any such lobbying has been?

* Each informant was be asked to name other individuals that they think might be useful sources of investigating further information.

APPENDIX 3 NATIONAL ECONOMIC AND SOCIAL DEVELOPMENT PLAN (NESDP) AND URBAN AND HOUSING PLANNING

National Plans	Characteristics of Plans and Development Guidelines	Urban and Housing Development Guidelines
1st NESDP 1961-1966	• Established economic base of the country as single objective. • Focused on infrastructure-led development; for example, transportation networks, irrigation dams, power supply, and utilities etc.	• Not given priority.
2nd NESDP 1967-1971	• Continued strengthening economic base of the country and began to emphasize on human resources development. • Emphasized on economic and social infrastructure development, including distribution of benefits to the regions especially rural and remote areas. • Launched sector analysis as the frameworks for projects' development.	• Recommended decentralization to expedite rural development.
3rd NESDP 1972-1977	• Still focused on economic growth with more emphasis on monetary stability. • Highlighted social aspects in the National Plan for the first time, mainly in area of population, for example, family planning, reduction of population growth rate. • Emphasized on distribution of income, economic and social services to rural and remote areas. Also recommended improvement of agricultural institutions, agricultural credit, and agricultural product prices.	• Emphasized on measures to control population size and migration from rural area to Bangkok, a Primate City of the country. • Recommended development of New Towns as satellite towns of Bangkok.

4th NESDP 1977-1981	Because of political uncertainty at that time, the 4th Plan, emphasized on broad policies and measures to tackle development problems. Focused on economic rehabilitation, especially, expansion of agricultural production, restructuring in manufacturing sector aimed to enhance export earnings. Implemented stimulating measures to counter industrial slowdown, coupled with measures to distribute income and job opportunities to the region. Recommended natural resource management in the National Plan for the first time, with emphasis on land use management, water resources provision, and energy development in the Gulf of Thailand. The environmental impact assessment (EIA) was formally introduced	• Developed regional cities as centers for rural-regional decentralization. • Developed Bangkok as the self-contained polycentric metropolis so that the inner zone, the suburbs, and the outer zone could have economic and social centers of their own.
5th NESDP 1982-1986	• Shifted planning approach from project-oriented to program-oriented. • Launched area-based planning approach to be implemented by both public and private sectors, i.e. identified target areas for rural development program, Eastern Seaboard development program, regional cities development program etc. • Emphasized solving poverty in 288 poverty-stricken districts and sub- districts.	• Initiated development of economic area in Eastern Seaboard to diverse economic activities from BMR). • Formulated structural plan of BMR and identify specific roles for each community.
6th NESDP 1987-1991	• Initiated program-based National Plan and reviewed roles of the government in national development administration through state enterprises' development plans. • Emphasized the importance of economic growth and maintaining fiscal and financial stability. • Emphasized the roles of private sectors in development, and increased the roles of local people organizations in conservation and development of natural resources and environment.	• Formulated development policies on urban and specific areas e.g. growth management of Bangkok through fiscal & legal measures, and Regional Cities development program. • Accelerated development in Eastern Seaboard area, and preparation for new economic zones in Upper Southern Region.
7th NESDP 1992-1996	• Initiated Sustainable Development by emphasizing balanced development in 3 aspects namely, economic growth, distribution, and development of human resources, quality of life, & environment. • Focused on shaping Thai economy to be the regional economic forefront in terms of economic, trade, financial & tourism.	• Formulated development guidelines for BMR by coordinating infrastructure investments together with land & environmental management. • Continued development in Eastern Seaboard area. • Launched industrial development

		policy in Upper Central Region.
8th NESDP 1997-2001	• Shifted development paradigm from emphasizing economic growth to people-centered development. • Emphasized the bottom-up planning approach, and encouraged people in every sector of society to participate in the country's development from the plan formulation process onward. • Emphasized on balanced development between various aspects such as economic, social, natural resources and environmental. • Emphasized that the natural resources and environment should have been protected and managed properly, efficiently to form the basic of the sustainable development of the next generation.	• Continued development in Eastern Seaboard area, Southern Seaboard area, Western Seaboard area and BMR. • Emphasized on economic cooperation with neighboring countries.
9th NESDP 2002-2006	• Launched "Sufficiency Economy Philosophy" as the administration mechanism for the country. • Continued from the 8th National Plan, in emphasizing people-centered development. • Emphasized on reviving economic and building immunity through grass-root economic development and expand social protection. • Shifted from quantity-based development to quality-based development, coupled with enhancing social justice and competitiveness.	• Formulated strategy on restructuring of sustainable rural and urban development through empowering community; developing livable city & community; reducing rural & urban poverty; developing benign urban- rural linkage; and formulating strategy on regional, sub-regional and community development. • Launched provincial cluster development policy.
10th NESDP 2007-2011	• Emphasized the action-oriented implementation of "Sufficiency Economy Philosophy". • Carried on from the 8th & 9th National Plans, in emphasizing people-centered development. • Formulated country-development vision to attain "green & happiness society". • Emphasized on using economic capital, social capital, and environmental capital in country development.	• Emphasized on strategy to empower community as country's foundation. • Focused on participation of all partners in every steps of development, especially in clarifying roles of development partners to be used as guidelines in formulation of action plans. • Continued provincial cluster development policy.
11th NESDP 2012-2016	• Utilised the current resilience of Thai society and its economy, and prepare both individuals and society as a whole to cope with the effects of such changes and pave the way toward well-balanced development under the Philosophy of Sufficiency Economy.	• Developed efficient and sustainable economy by upgrading production and services based on technology, innovation and creativity with effective regional linkages, improving food and energy security, upgrading eco-friendly production and consumption toward a low-carbon-society • Preserved natural resources and environment to be sufficient for

		maintaining the ecology and a secure foundation of development.
12th NESDP 2017-2021	• Based upon the principles of the Sufficiency Economy Philosophy • Complied with the 20-year national strategic plan (2017-2036) which seek to enhance and develop the potential of human capital; ensure justice and reduce social disparities; strengthen the economy and enhance competitiveness on a sustainable basis; promote green growth for sustainable development; bring about national stability for national development toward prosperity and sustainability; and enhance the efficiency of public sector management and promote good governance.	• Expand new production and service bases to generate more income for people in each region, and supporting the quality growth of urban areas. • Distribute regional growth and economic opportunities more equitably. • Develop the city centers of each province to become livable cities for all • Develop and revive key economic areas to grow ecologically and improve the living standards of their communities.

Source: Office of the National Economic and Social Development Board, 2017

APPENDIX 4 GUIDELINE FOR ENVIRONMENTAL RESOURCES AND VALUES TO BE STUDIED

Elements		Scope of Study
1. Abiotic resources		
1.1 On land	Geomorphology	Topography Elevation Unique physical feature e.g. island or cliff
	Soil	Profile of soil type and extent of each, sedimentation, erosion physical and chemical characteristics
	Geology	General description of geology of the site
	Resources	Seismicity type and quantity of mineral resources in the project site and surrounding area
1.2 Aquatic	Surface & underground water	Water source, quantity, quality and flow rate
	Sea water	Oceanographic characteristics. Water quality and current water stratification
	Air	Climatic characteristic (rainfall, intensity, temperature). Incidence of inversions, fog, storms, air quality
	Noise	Intensity and frequency
2. Biotic resources		
	Animal/plant	Ecology, species, number, distribution habitat and migration
	Rare species	Species, number and its importance
3. Human use value		
	Drinking/domestic water	Sources, quantity, quality and adequacy
	Transport	Route (highway, railway, water route)
	Electricity and energy Flood control/drainage Agriculture activities	Sources, kind, type, adequacy System and efficiency agriculture development / agriculture promotion Irrigation system reforestation
	Industry	Type of industry
	Mining	Type of mining
	Recreation	Type and use of the green area recreation area, green area
	Land use	Existing land use Area specific zoning
4. Quality of life value		
	Socio-economic	Information on population (occupation, income, language, religion)
	Health	Sickness rate, infectious diseases, endemic sickness, health services
	Occupational health	Occupational disease, work related accident, health risks
	Historical	Historical site, archaeological site, traditional customs, traditions and culture
	Recreational value	Beauty value of recreational area Important natural landmark Preservation or conservation area

Source: ONEP (2015, p. 23)

APPENDIX 5 TYPES AND SIZES OF PROJECTS OR ACTIVITIES REQUIRING PREPARATION OF ENVIRONMENTAL IMPACT ASSESSMENT REPORTS

Item	Type of Projects or Activities	Sizes	Principle, Method, Procedure
1	**Mining as defined by the Mineral Act**		
	1.1 Mining as follows:		
	1.1.1 Coal mining	All sizes	Submit during apply for mining concession
	1.1.2 Potash mining	All sizes	Submit during apply for mining concession
	1.1.3 Rock salt mining	All sizes	Submit during apply for mining concession
	1.1.4 Limestone mining for cement Industry	All sizes	Submit during apply for mining concession
	1.1.5 All types of metal ore mining	All sizes	Submit during apply for mining concession
	1.2 Underground mining	All sizes	Submit during apply for mining concession
	1.3 All mining projects located in the following areas:		
	1.3.1 Watershed area class 1 by the cabinet resolution	All sizes	Submit during apply for mining concession
	1.3.2 Reserved forest added by the cabinet resolution	All sizes	Submit during apply for mining concession
	1.3.3 Wetland, internationally recognized	All sizes	Submit during apply for mining concession
	1.3.4 Areas adjacent within 2 km. to ancient site, archeological site, historical site or historical park defined by laws related with historical site and object, artifact, and national museum, and world heritage site registered according to the world heritage convention.	All sizes	Submit during apply for mining concession
	1.4 Mining that uses explosives	All sizes	Submit during apply for mining concession
	1.5 Other mining projects according to The Mineral Act, except 1.1, 1.2, 1.3, 1.4	All sizes	Submit during apply for mining concession
2	**Petroleum Industry**		
	2.1 Petroleum Exploration by means of geophysical drill	All sizes	Submit during apply for project approval form related government agencies or permitting agencies defined by Petroleum Act
	2.2 Petroleum Production Industry	All sizes	Submit during apply for project approval form related government agencies or permitting agencies defined by Petroleum Act
3	**Petroleum and Fuel Pipeline System Project**	All sizes	Submit during apply for project approval from related government agencies
4	**Industrial Estate as defined by the**	All sizes	Submit during apply for a permit of

	Industrial Estate Authority of Thailand Act or Projects with identical feature or Land Allocation Project for industrial development		project construction or operation
5	**Petrochemical Industry using chemical process in production**	Productivity is 100 tons/day or more	Submit during apply for a permit of project construction or operation
6	**Petroleum Refining Industry**	All sizes	Submit during apply for a permit of project construction or operation
7	**Natural Gas Separation Industry or Natural Gas Reforming Industry**	All sizes	Submit during apply for a permit of project construction or operation
8	**Chlor-alkaline Industry using Sodium Chloride (NaCl) as raw material for production of Sodium Carbonate (Na2Co3), Sodium Hydroxide (NaOH), Hydro Chloric Acid (HCl), Chlorine (Cl2), Sodium Hipochloride (NaOCl) and Bleaching powder**	Productivity each or total products are 100 tons/day or more	Submit during apply for a permit of project construction or operation
9	**Cement Industry**	All sizes	Submit during apply for a permit of project construction or operation
10	**Pulp Industry**	Productivity is 50 tons/day or more	Submit during apply for a permit of project construction or operation
11	**Pesticide Industry or Industry producing active ingredient by chemical process**	All sizes	Submit during apply for a permit of project construction or operation
12	**Chemical Fertilizer Industry using chemical process**	All sizes	Submit during apply for a permit of project construction or operation
13	**Sugar industry as follows:**		
	13.1 Producing raw sugar, white sugar and refine sugar	All sizes	Submit during apply for a permit of project construction or operation
	13.2 Producing Glucose, Dextrose, Fructose or other products alike	Productivity is 20 tons/day or more	Submit during apply for a permit of project construction or operation
14	**Iron or steel industry**	Productivity is 100 tons/day or more	Submit during apply for a permit of project construction or operation
15	**Mineral Smelting Industry, Mineral Dressing Industry or Metal Melting Industry except Iron or Steel**	Productivity is 50 tons/day or more	Submit during apply for a permit of project construction or operation
16	**Liquor and Alcohol Industries including beer and wine**		
	16.1 Liquor and Alcohol Industries	Productivity is 40,000 liter/month or more (calculated at 28 degrees)	Submit during apply for a permit of project construction or operation
	16.2 Wine Industry	Productivity is 600,000 liter/month or more	Submit during apply for a permit of project construction or operation
	16.3 Beer Industry	Productivity is 600,000 liter/month or	Submit during apply for a permit of project construction or operation

		more	
17	**Central Waste Treatment Plant according to the Factory Act**	All sizes	Submit during apply for a permit of project construction or operation
18	**Thermal Power Plant**	Productivity of electricity is 10 MW or more	Submit during apply for a permit of project construction or operation
19	**Expressway as defined by the Expressway and Rapid Transit Authority of Thailand Act or other projects alike**	All sizes	Submit during apply for project permission or approval
20	**Highway or road as defined by the Highway Act, passing through following areas:**		
	20.1 Wildlife sanctuaries and wildlife non-hunting areas as defined by the Wildlife Conservation and Protection Act	All sizes	Submit during apply for project permission or approval
	20.2 National park as defined by the National Park Act	All sizes	Submit during apply for project permission or approval
	20.3 Watershed area class 2 approved by the Cabinet Resolution	All sizes	Submit during apply for project permission or approval
	20.4 Mangrove forests designated as the national forest reserve	All sizes	Submit during apply for project permission or approval
	20.5 Coastal area within 50 meters of high tide level	All sizes	Submit during apply for project permission or approval
	20.6 Area adjacent within 2 km. to the internationally recognized watershed area or world heritage site registered according to the world heritage convention.	All sizes	Submit during apply for project permission or approval
	20.7 Areas adjacent within 2 km. to ancient site, archeological site, historical site or historical park defined by laws related with historical site and object, artifact, and national museum.	All sizes	Submit during apply for project permission or approval
21	**Rail-Type Mass Transit System**	All sizes	Submit during apply for project permission or approval
22	**Port**	With capacity of vessels for 500 gross tons or more or with the total length of the front port is 100 meters or more or with the total port area is 1,000 square meter or more	Submit during apply for project permission or approval
23	**Recreational Port**	With capacity of 50 vessels or more	Submit during apply for project permission or approval
24	**Land Reclamation**	All sizes	Submit during apply for project permission or approval
25	**Construction Or Expansion Of A Construction onshore and offshore**		

	25.1 Sea wall next to coastline	The total length is 200 meters or more	Submit during apply for project permission or approval
	25.2 Groin, training jetty, training wall	All sizes	Submit during apply for project permission or approval
	25.3 Offshore breakwater	All sizes	Submit during apply for project permission or approval
26	**Aviation Transportation System**		
	26.1 Construction or Expansion of commercial airport or temporary take-off or landing strips for commercial purposes	The runway length is 1,100 meters or more	Submit during apply for project permission or approval
	26.2 Water airport	All sizes	Submit during apply for permission of airport establishment or of aircraft take-off and landing
27	**Building which defined by the Building Control Act that has location or building utilization as follow:**		
	27.1 Building that located near rivers, seacoast, lakes or beaches or in the vicinity or inside National Parks or Historical Parks which may potentially cause unpleasant impact to environmental quality	With 23 meter height or more or the total floor area or individual area in the same building is equal to 10,000 square meters or more	Submit during apply for a permit for construction or at a time of notification to local officials in case of no permit required which defined by the Building Control Act
	27.2 Building used for wholesale or retail business	With 23 meters height or more or the total floor area or individual area in the same building is equal to 10,000 square meters or more	Submit during apply for a permit for construction or at a time of notification to local officials in case of no permit required which defined by the Building Control Act
	27.3 Building used as private office	With 23 meters height or more or the total floor area or individual area in the same building is equal to 10,000 square meters or more	Submit during apply for a permit for construction or at a time of notification to local officials in case of no permit required which defined by the Building Control Act
28	**Land Allocation for residential or commercial purposes which defined by the Land Allocation Act**	500 plots of land or more or total allocated area is more than 100 Rai (16 hectares)	Submit during apply for a permit of land allocation defined by the Land Allocation Act
29	**Hospitals or Nursing Homes that defined by the Medical Services Act located in the following area:**		
	29.1 Areas are near rivers, seacoast, lake or	Total 30 in-	Submit during apply for a permit for

	beaches within 50 meters distance	patient's bed or more	construction or at a time of notification to local officials in case of no permit required which defined by the Building Control Act
	29.2 Other areas from 29.1	Total 60 in-patient's bed or more	Submit during apply for a permit for construction or at a time of notification to local officials in case of no permit required which defined by the Building Control Act
30	**Hotel or Resort which defined by the Hotel Act**	Total 80 rooms or more	Submit during apply for a permit for construction or at a time of notification to local officials in case of no permit required which defined by the Building Control Act
31	**Residential Building which defined by the Building Control Act**	With 80 rooms or more or total utilization area is 4,000 square meters or more	Submit during apply for a permit for construction or at a time of notification to local officials in case of no permit required which defined by the Building Control Act
32	**Irrigation**	Irrigated area of 80,000 Rai (12,800 hectares) or more	Submit during apply for project permission or approval
33	**All types of projects located in the areas approved by the Cabinet as watershed area class 1**	All sizes	Submit during apply for project permission or approval
34	**Trans Watershed Diversion as follows:**		
	34.1 Trans major watershed diversion as temporarily operated except for disaster or impact to public security	All sizes	Submit during apply for project permission or approval
	34.2 International trans watershed diversion as tempo rarity operated except for disaster or impact to public security	All sizes	Submit during apply for project permission or approval
35	**Sluice in the main river**	All sizes	Submit during apply for project permission or approval

Source: ONEP (2015, p.77-85)