

Factors that informed the New Zealand Government's decision to implement an Emission Trading Scheme as New Zealand's Climate Policy



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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no materials previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning

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27 March 2012

“To allow the market mechanism to be sole director of the fate of human beings and their environment... would result in the demolition of society” –

Karl Polanyi, *the Great Transformation*, 1944, p. 73

Abstract

It is been about two decades since debate on New Zealand's climate policy first started. The speed at which the incumbent governments have modified New Zealand's climate policy proves that climate policy is one of the most controversial political issues in New Zealand (Terry & Bertram, 2010). The first proposal to reduce greenhouse gas emissions was put forward in 1990 and the latest in 2007. This research explores the factors that informed the New Zealand government's decision to implement an emission trading scheme (ETS) as New Zealand's climate policy. To answer the research questions this thesis uses the methodology of content analysis to critically analyse policy documents, relevant books and journal articles along with national newspapers and magazines. The framework considers various factors such as ideology, public perception, economic imperatives, impact on international tourism, impact on New Zealand's agricultural economy (forestry and dairy), environmental considerations and New Zealand's international relations that may have informed the Government's decision to implement an emissions trading scheme. The analysis indicates that amongst other factors competitiveness of local industry and business along with New Zealand's international relations and reputation were critical factors towards implementing the Emission Trading Scheme. Ideology of the political Party in government has had a significant effect on how the Climate Change legislation was drafted. The government's argument towards implementing the ETS is to create economic, institutional and market synergy for industry and business to innovate products and services that lead to minimum or no greenhouse gas emissions and address the issue of climate change. The policy adapts a flexibility approach towards preparing business and industry in adapting the costs and uncertainty of climate change. There is also evidence that implementation of an ETS can be used as a unique selling point for New Zealand to establish itself as a greenhouse trading and financial services hub.

This research provides a comprehensive assessment of New Zealand's emission trading scheme along with suggestions on filling up the gaps in the policy.

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List of Abbreviations

AAUs	Assigned Amount Units
CDM	Clean Development Mechanism
CER	Certified Emission Reduction Units
CP1	Commitment Period 1
CP2	Commitment Period 2
CPRS	Carbon Pollution Reduction Scheme
ECCP	European Climate Change Programme
ETS	Emission Trading Scheme
EU	European Union
EUETS	European Union Emission Trading Scheme
GHG	Greenhouse Gases
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation
NIWA	National Institute of Water and Atmospheric Research
NZETS	New Zealand Emission Trading Scheme
NZIER	New Zealand Institute of Economic Research
OECD	Organisation for Economic Cooperation and Development
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
TZ1	Terminal Zone 1

Chapter One: Research Question and Thesis Outline

1.1 Introduction

In addition to hunger and poverty, climate change is now recognised as an inevitable threat to Earth's ecosystems. Despite this recognition climate change remains a topic of passionate debate. This passionate debate stems due to a lack of consensus on how does the global political and business leadership consolidate social, environmental and economic interests and assign liability towards its causes and consequences. As noted by multiple scholars the problem is global and requires multiple solutions (Phillips, 2010; Stern, 2008; Kolk & Levy, 2008; Okereke, 2007; Jones & Levy, 2007; Hoffman, 2002; Dunn, 2002; Levy & Newell, 2000).

Long after recognition of the issue and considerable debate the United Nations along with the international community setup the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC was set up at the United Nations Conference on Environment and Development held in Rio de Janeiro in June 1992. This unprecedented accord marked the first formal acknowledgement by global political leadership that problem of climate change exists and that collective measures are required to address the problem. The treaty although non-binding was setup with the aim of stabilising greenhouse gas levels in order to prevent further human induced climate change. Towards achieving this stabilisation it called for significant reduction in global greenhouse gas emissions. Based on the framework provided under the UNFCCC, the Kyoto Protocol was adopted in 1997. Developed Nations that ratify the protocol are legally bound to reduce their greenhouse gas emissions.

In the light of the above, New Zealand's government has without success attempted a number of times to implement a nationwide climate policy. However, based on a National Interest Analysis conducted by the New Zealand government (Ministry for the Environment, 2002), New Zealand decided to ratify the Kyoto Protocol in 2002 and accepted its obligation as an Annex I (developed nation state) to reduce its greenhouse gas emissions. Based on the Kyoto Protocol's suggestion, the New Zealand government after considerable amount of debate and discussions with all stakeholders (business, industry and political parties) passed the Climate Change (Emission Trading and Renewable Preferences) Bill in 2008 in order to implement an emission trading scheme. The scheme was to be implemented on a macro level with the aim of covering all

sectors and industries that emit greenhouse gases. The general elections at the end of 2008 resulted in a change of government, the incumbent government amended the scheme in order to provide more time and resources to business and industry towards adaptation of additional costs imposed by the emission trading scheme (Ministry for the Environment, 2011e).

Even after providing business and industry with support towards adapting to additional costs the emission trading scheme has not received much support from relevant stakeholders due to a general belief that the mechanism may not address the issue and add to costs which may lead to job losses and fall in the standard of living. Public policy making especially in areas with far-reaching implications and long term horizons such as climate change is complex. The set of options which influence the decision process has implications for the trade-off between early and delayed action, the distribution costs and benefits, the prospects for deadlock and conflict and ideology overriding rationality (Parson, 2006 as cited in Phillips, 2010). The New Zealand government's decision to first of all implement a carbon policy and then choose an emissions trading scheme as its mechanism to tackle climate change represents a peculiar decision especially when one considers that not so long ago the government had to abolish a carbon tax in 2002 (Becken, Marquardt, & McKenzie, 2006).

Of particular interest to this thesis are the factors on which the government based its choice of emissions trading scheme as this country's climate policy especially after growing evidence has found disagreement of business and industry over imposition of costs towards what they claim is an externality (Kolk & Levy, 2008; Okereke, 2007; Jones & Levy, 2007; Hoffman, 2002; Dunn, 2002; Levy & Newell, 2000). Efforts to understand the factors that formed the basis of the New Zealand government's choice have been limited rather the discussion and debate have focussed on increase in costs to business and consumers, issues of carbon leakage that may lead to job losses and drive industry overseas, that New Zealand's actions with regards to climate change do not need to be world first and a number of other arguments.

1.2 The research question

The purpose of this research is to examine the factors that form the basis of New Zealand government's decision to implement an emission trading scheme as opposed to other alternatives such as a carbon tax or mixture of carbon tax and cap and trade. To achieve this purpose the research looks at a number of factors including ideology,

public perception, economic imperatives (such as international tourism, agriculture), environmental considerations, international relations and public policy.

The question that this research seeks to address is what factors inform New Zealand government's policy on emission trading scheme?

The examination of this research question was undertaken by exploring the above listed factors and the policy document. This was followed by comparison of the New Zealand emission trading scheme to the European emission trading scheme in order to understand how the European mechanism (which is the oldest emission trading scheme and serves as a model for any nation state) was successful in achieving its objectives. The essence of the comparison was to understand what lessons, if any, can New Zealand policy makers draw from the European emission trading system in case it is considered successful? In order to understand public perception as a factor towards the scheme's implementation a thematic analysis was undertaken where a non-probabilistic sample of editorials, opinion pieces and letters to the editor from New Zealand's national and regional newspapers, business and current affairs magazine was considered

1.3 Thesis Outline

The thesis comprises of eight chapters: Chapter one sets out the research theme on climate change, the research question and the general outline of the thesis. In discussing ideology as a factor, chapter two narrowed down the ideological leaning of the Labour and National political parties as these are New Zealand's largest political parties. The chapter also examined the parliamentary debate and discussions to identify the role of ideology in New Zealand's climate policy. There was strong emphasis on the New Zealand Green Party because of their persistent role in advocating a climate policy for this country. The Parliamentary debates highlight the Catch 22 situation that the Labour Party government was in when it introduced the emission trading scheme. The government had to implement a nationwide climate policy due to its international obligations under the Kyoto Protocol which it ratified in 2002. However, any climate policy would lead to increase in costs hence it lacked support from business and industry and at times ordinary New Zealanders who felt that their opinion on such a critical legislation was not considered important. Ordinary New Zealanders appeared confused about why their elected government chose to pay the costs of climate change mitigation efforts of business and industry using tax payer dollars. The amendment introduced by National Party in 2009 further weakened the ETS.

Chapter three discusses the economic theory of neo-liberalism. It provides definitions of neo-liberalism by critical thinkers such as Noam Chomsky, David Harvey and Ludwig von Mises who suggested that neo-liberal economic theory argues for minimal regulation, private property rights, free markets and trade. Neo-liberalism is not a new economic theory; it evolved out of a number of experiments of social democratic and welfare state policies, as proposed in 1776 by Adam Smith in his seminal work *The Wealth of Nations*.

Neo-liberalism was introduced in New Zealand with the structural adjustment of 1984 which turned the country from a social democrat to a free market economy. Schools, hospitals and ministries which earlier delivered services to citizens were now required to deliver profits. This radical economic theory can now be seen in most governmental policy including climate policy.

Chapter Four discusses the international negotiations that form the basis of the emission trading scheme. From the 1987 Brundtland report that formed the basis of the 1992 United Nation Framework Convention on Climate Change to the 1997 Kyoto Protocol. The Brundtland Commission argued that economic growth is not the problem but the solution to the global issue of climate change. It urged the need to redefine development and called for development to be sustainable. The UNFCCC set binding greenhouse gas reduction targets for 37 industrialised nations and also suggested mechanisms of emission trading, clean development and joint implementation to achieve their greenhouse gas reduction targets. ETS is a neo-liberal tool based on meta regulation, which takes away any enforcement power from the government, provides maximum flexibility to business in terms of achieving their greenhouse gas reduction targets, allows individuals and businesses to trade assigned amount units regardless of whether the trade leads to any reduction in GHG emissions or not. The National Party government amended the 2008 Labour Party government emission trading scheme in that same year after taking control of government, altered the manner of allocation of AAUs to business and industry, changed allocation under the “grandfathering principle” that capped AAUs at 90 per cent of 2005 emissions, to allocations made on the basis of previous year’s production by an enterprise. This provided higher number of units than under the grandfathering principle used in the proposed Labour Party ETS.

Chapter five undertakes a comparative analysis between the European and New Zealand emission trading scheme to draw lessons for the New Zealand ETS from the oldest and

largest – European emission trading system. Key lessons that New Zealand policy makers can take from the EUETS is to take the science of climate change seriously.

Chapter Six and Seven discuss the methodology and its implementation in this thesis. The thesis uses the methodology of content analysis to build thematic tables. The purpose of designing thematic tables is to understand the role of public perception on climate change in the New Zealand government's decision to implement an ETS. This research reviewed a total of 37 articles, opinion pieces and letters to the editor in order to identify patterns in public perception. Articles, opinion pieces and letters to the editor were chosen using non-probabilistic sampling from national and regional newspapers, business and current affairs magazines. A majority of the arguments in the thematic analysis were made against the implementation of an ETS. The reasons for these arguments were based on an individual or enterprise agenda or because of ethics and economics interest. Arguments ranged from ETS will result in carbon leakage, job losses, lack of competitiveness and increase the cost of production to climate change science is uncertain and investing significant amount of resources in to uncertain science will not result in any positive outcome. Ethical arguments against the ETS labelled it as a corporate welfare scheme that transfers money from ordinary New Zealanders to large business and industry. Arguments in support of the scheme point out that everyone including the environment benefits from the ETS.

Chapter Two: Climate Change Policy and Politics in Aotearoa New Zealand

The common belief is that the core issues for any government of the world are to create and sustain a system of equitable distribution of wealth, ensure the provision of citizen rights and provide adequate access to fundamental services such as healthcare and housing. However, in recent times governments across the world have been challenged to deal with issues that inevitably will change the way we live our lives. The issue is that of climate change, and from what scientists and scholars tell us it is not isolated to one city or country; it is global and interconnected in its effects. Due to its global reach climate change represents an unprecedented challenge for humanity. So what exactly is climate change?

2.1 What is Climate Change?

Climate change is arguably the most significant environmental issue being discussed today. It is also referred to as greenhouse warming, the greenhouse effect or global warming. The greenhouse gas effect refers to the bio-geo atmospheric process – a process during which energy released by sun rays is absorbed by atmospheric gases instead of escaping back in to the atmosphere. Global warming refers to the resultant heat caused due to absorption of energy by greenhouse gases (Stern, 2007). Climate change refers to the consequences of the resultant heat (Kessel, 2006). Carbon dioxide, methane, nitrous oxide and chlorofluorocarbons are the greenhouse gases that trap the energy released by the sun. These and other greenhouse gases exist in the atmosphere just like non-greenhouse gases such as oxygen. Burning fossil fuel such as coal, oil, natural gas or lignite (a by-product of coal) exacerbates the amount of greenhouse gases to levels that are beyond nature's capacity to sustain. This creates an imbalance in the eco system which creates excessive heat which results in higher temperatures and changing weather patterns.

Fossil fuels are largely used for industrial production and are preferred because of their low costs. Any drastic reduction in the use of fossil fuels will most definitely affect the way in which contemporary nation states are managed as business and industry that form the backbone of a contemporary nation state may be faced with a number of challenges including how to sustain their businesses. Altvater (2007) highlighted how businesses are being challenged as a result of climate change. According to Altvater, in order to return the credit availed to businesses and to ensure that profitable growth is

consistent, business and industry must use the cheapest fossil fuel for industrial production (Altvater, 2007). Due to the significant reliance of business and industry on cheap fossil fuels governments face strong opposition from business and industry towards reducing or regulating usage of fossil fuels (Broome, 2008; Stern, 2007; Gardiner, 2006; Grubb, 1995).

The problem, however, is in case this reliance on fossil fuels does not reduce and eventually end the negative consequences of rising temperatures and changing climate will alter the way we lead our lives. Scientific evidence from credible organisations such as the National Academy of Sciences and the Intergovernmental Panel on Climate Change confirms that planet Earth's surface temperature has increased by about one degree Fahrenheit over the past hundred years and is expected to continue rising (Bretherton, Mantua and Mote, 2009). A significant portion of this increase in temperatures is from an increase in the greenhouse gas process. Therefore, the need to take credible action towards reducing and regulating greenhouse gas emissions is imperative. In the next section I elaborate on measures taken by previous New Zealand government to reduce greenhouse gas emissions.

2.2 The New Zealand Government's response to Climate Change

The New Zealand government, like the rest of the world, realised the impact of industrial growth on the environment. Based on their concerns, successive governments outlined measures to address the issue. In 1990 the National Party government stated its goal of reducing carbon dioxide emissions 20 per cent below the 1990 levels by 2005 (Jim Bolger, Government Policy Statement, 1990). In 1991 Minister for the Environment Simon Upton outlined his government's commitment to an interim target of 20 per cent reduction in carbon dioxide emission by 2000 (Ministry for the Environment, 1991). In 1992 the government dropped its interim target of achieve 20 per cent reduction in carbon dioxide emission by 2000. Instead the government decided to sign the United Nations Framework Convention on Climate Change (UNFCCC) with the aim of reducing emission of carbon dioxide and other greenhouse gases to 1990 levels (Ministry for the Environment, 1992). In 1994 the minister for the environment iterated the Government's primary objective of returning *net* carbon dioxide emissions to their 1990 levels by the year 2000 (Minister for the Environment, 1994). The difference between 1992 and 1994 objective is the use of forest sinks to offset New Zealand's targets hence the ministry uses the term *net* in its 1994 press release. Following its 1994 declaration of achieving a *net* reduction in 1997, New Zealand

adopted the Kyoto Protocol. In adapting the Kyoto Protocol, New Zealand made an internationally binding commitment to reduce its greenhouse gas emissions to 1990 levels on average between 2008 and 2012 (commitment period 1). When the Kyoto Protocol was adopted by New Zealand it did not include forest sinks. In 2001 the government outlined its new aim of achieving New Zealand's Kyoto Protocol targets while also ensuring that the social and economic costs of achieving the target are kept low (Cabinet Business Committee Paper, 2001). In 2002 New Zealand ratified the Kyoto Protocol, it managed to negotiate reduced commitments to *net* reduction in emissions by including credits from forestry in its targets under the protocol.

In the above paragraph one can find evidence that successive New Zealand governments have outlined their respective visions to protect the environment by reducing greenhouse gas emissions. However, none of the visionary statements translated in to any substantive action as New Zealand's greenhouse gas emissions have and continue to increase. This was confirmed in a number of official reports in the years 2005 and 2006 that suggested any decrease in New Zealand's greenhouse gas emissions is unlikely (Ministry for the Environment, 2006). This represents lack of a clear strategy by policy makers on how to achieve New Zealand greenhouse gas reduction.

Due to its Kyoto commitments and in a bid to show that the government is serious about achieving New Zealand's emission reduction targets, the Labour Party government in 2007 proposed an emission trading scheme. The aim of this mechanism was not to reduce greenhouse gas emissions rather it was limited to curbing the rate of growth in net emissions (Ministry for the Environment, Framework for a New Zealand Emissions Trading Scheme, 2007). In November, 2008 due to the general elections New Zealand had a change of government. The incoming National Party government made significant amendments to the proposed Labour Party emission trading scheme. It delayed the entry of key sectors that are responsible for major greenhouse gas emissions. It also announced a new target of 10 to 20 per cent reduction in New Zealand's greenhouse gas emissions (Ministry for the Environment, 2006). Under this new strategy greenhouse gas reduction was not to be achieved by any enforcement from the government on industry rather through purchase of emission reduction credits from other countries (discussed in detail later in this chapter). National Party government wanted to ensure minimum scrutiny of its climate change strategy. When Dr Jim Salinger, New Zealand's top climate scientist and a Nobel Prize winner highlighted his concerns about the warming climate, the effect of it on New Zealand's glaciers and lack of a credible

strategy from the government he was asked to leave office for publicly stating his opinion. This was reported widely in the New Zealand media.

There are a number of factors that drive a government's policy response to various issues in a nation state. In the next section I examine the factors behind New Zealand's climate policy.

2.3 Factors driving New Zealand's Climate Policy

Policy formulation is a complicated and tedious process in which the demands of a number of stakeholders must be considered. As Daniel W. Bromley notes:

the main characteristic of public policy is that the pressure for a policy response is a bottom-up movement characterised by the presence of advocacy or lobbying groups, multiple stake holders, often different views about desirable outcomes and active involvement of the media. Other characteristics of interest are the presence of an ethical or value dimension which may differ within and between countries; uncertainty about the process or impacts or other forms of unknown or inaccessible knowledge such as uncertainties about the scientific evidence; information asymmetries; different perceptions of or aversions to risk and possible irreversibility. (Bromley, D.W., 2010p37).

New Zealand's emission trading scheme was designed after significant advocacy from multiple stakeholders and lobby groups each seeking a favourable outcome for itself. These groups used lack of scientific evidence and the negative economic impact of implementing an ETS as leverage tool towards a weak climate policy. Ethical, environmental and intergenerational considerations were sprinkled like salt and pepper, rather than being placed at the core of this critical legislation. What were the reasons for this lack of ethical, environmental and intergenerational consideration? The following section discusses the factors that informed New Zealand government's decision to implement the emission trading scheme (ETS).

2.3.1 The meaning and forms of Ideology

To understand ideological orientations of New Zealand's political parties is to refer to the world's major political ideologies that appear to be on competing terms. Livesey, (2006) highlights these competing ideologies as reactionism, conservatism, liberalism and neo-liberalism.

Ideology is a set of beliefs and ideas that one can apply to policies and events. It is ones political moral code and a world view (Livesey, 2006). According to Livesey, an ideology can be termed reactionary if it supports rapid and retrogressive changes to existing policy by use of regulation and laws. Reactionary ideology seeks to limit property rights and imposition of excessive taxation.

The second category of a political ideology is conservative. These are individuals who support little or no change and strongly believe in individual freedom, property rights and self-responsibility. Conservatives argue for little or no involvement of government in economic policy with minimum taxation on business and corporations (Livesey, 2006). Conservatives firmly believe that less interference by the government in business and industry leads to economic prosperity for everyone (Gerring, 1997). Conservatives seek government intervention towards what they claim is respect for authority, tradition, support for decency and morality. On this basis they seek government support towards specific programs such as anti-abortion, daily school prayer, internet censorship and capital punishment amongst other policies (Gerring, 1997). The difference between conservatives and reactionaries is that conservatives seek modest means while reactionaries seek more drastic measures towards achieving their view point (Mullins, 1972).

The third category of political ideology is liberals, who support gradual and modest progressive change. Liberals believe in open mindedness, acceptance and tolerance for diversity and differences (Livesey, 2006). Liberals seek empowerment of the less fortunate in order to provide them opportunity to earn equality in the society. Liberals also believe that given the chance and conditions human beings act in common good (Gerring, 1997). Although liberals support empowerment of Less fortunate they are pro capitalism and free enterprise as well. However liberals argue that capitalism must be regulated to ensure that businesses do not take advantage of labour, consumer groups and groups that may not know or be aware of their rights (Mullins, 1972).

If one were to stretch the ideas presented by liberalism on capitalism and free enterprise but with minimalistic regulation from the government along with market forces dictating policy direction then the discussion is on the fourth form of ideology neo-liberalism. Neo-liberals seek to intensify and expand the market as their goal is to consider every action as a transaction (Gerring, 1997). Neo-liberals consider the market as the invisible hand of God directing human beings to their destiny. Instead of focussing on private property rights like conservatives or equality like liberals, neo-liberals focus on contracts or transactions where the rules of the market as decided by the buyer and seller in the transaction decide the outcome (Mullins, 1972). Neo-liberals seek government intervention but only to the point where the government facilitates the creation of new policies and ideas that lead to creation of new markets (Livesey, 2006).

Conservatism and neo-liberalism dominate most contemporary political ideologies (Livesey, 2006; Gerring, 1997).

The following paragraph lists New Zealand's political parties that shaped the debate on New Zealand ETS followed by the parliamentary debate on the scheme in order to understand the position of each political party to different ideological positions provided above. The idea behind taking this approach is to understand the ideology that shaped New Zealand's climate policy.

The emission trading scheme was first proposed in 2007 by the Labour Party government. The Labour Party describes itself as “a Party that stands for ordinary hard working families. It seeks to actively promote policies on social justice, security and equality of opportunity. It seeks to implement policies that reduce the gap between rich and poor and recognises the need to restore balance in New Zealand's society” (New Zealand Labour Party website, 2006). Based on the above description one can label the Labour Party's ideology as liberal. The emission trading scheme was first supported, then opposed and finally amended by the National Party when it was elected to Government in 2008.

On its part the National Party describes itself as “a Party that stands for freedom, choice, independence and ambition. It believes in less government not more red tape. It argues to stand firmly against political correctness and strongly for personal freedom and responsibility” (New Zealand National Party website, 2008). Based on its description one can label the National Party ideology as conservative.

The New Zealand Green Party has played a critical role in New Zealand's climate policy. It argued unsuccessfully from 1993 till 2005 for introduction of a carbon tax. The Party had to change its position as carbon tax did not receive any support from either the Labour or National Party, the large political parties in New Zealand's political landscape. Towards an emission trading scheme the Green Party proposed that only large companies that release or bring fossil fuels in to the economy be a part of the trading market. This way the tax payer will not be burdened by paying for business and industry that emits large amount of greenhouse gases and this will also limit the amount of speculation on price of emission units (New Zealand Green Party website, 2008). But the Green Party's proposal on ETS did not receive political support once again. At the time of voting in parliament the Green Party supported Labour Party's scheme even though it was not able to achieve all of its objectives. However one significant

achievement for the Party was exclusion of low cost Russian hot air carbon credits of Eastern European countries from the ETS in an attempt to encourage companies to reduce their greenhouse gas emissions or buy expensive carbon reduction units from domestic or international markets (New Zealand Green Party website, 2008). The Green Party's ideology "is to create a society that values caring, co-operation, nurturing, and sharing of relationship between its people. A society that provides equal opportunity to people of all races, ages and abilities regardless of their sexual orientation and guarantees the provision of basic human needs of food, shelter, healthcare and education" (New Zealand Green Party website, 2008). Based on the description Green Party's ideology can be labelled as liberal.

ACT was the only political Party that opposed Labour Party's proposed emission trading scheme in 2007 as well as after amendments made to the proposed Labour Party ETS by the National Party government in 2009 based on Act Party's strong belief that there is inconclusive evidence that climate change and rise in temperatures is taking place due to human emitted greenhouse gas emissions. Act Party's ideology "is towards individual freedom, less government interference and rewarding hard work" (ACT Party website, 2006). Act's ideology can be labelled as conservative. The next section discusses the reading of the climate change bill, and the debate that ensued afterwards, highlighting individual Party members' contribution.

Parliamentary Debate

At the first reading of the climate change (Emission Trading and Renewable Preference) bill in December, 2007, Trevor Mallard, Labour Party's acting minister of Climate Change began the debate by introducing the bill during its first reading in Parliament. Mallard said that the government wants to ensure environmental integrity while minimising the costs and adverse effects on business and industry thereby it has agreed to implement a trading scheme rather than a carbon tax (NZ Parliament, 2007). Nick Smith National Party's spokesperson on climate change issues in his response to Mallard said that his Party supports the scheme and urged the government to make right choices in order for the scheme to benefit New Zealanders. In case the climate change policy exports New Zealand's industry such as agriculture, forestry, steel, aluminium and cement to other countries due to the cost imposed by the policy the National Party opposes it (NZ Parliament, 2007). David Carter of the National Party in his response to Mallard said that New Zealand must act because it is bound to act due to its international commitment after signing the Kyoto Protocol in 2002. The mechanism

should lead to behavioural changes in business and industry to reduce their greenhouse gas emissions and adapt to climate change and increased costs. Businesses that proactively work towards reducing greenhouse gas emissions and provide innovative solutions should be empowered to sell their excessive emission units. However the mechanism must not lead to competitive disadvantage for New Zealand business and industry (NZ Parliament, 2007). He cited for instance agriculture and dairy are the most productive sectors for this country, in case avoidable costs were to be forced on this sector it was imperative that agriculture and dairy sector will move to countries where there is no or little environmental regulation that adds to their costs. In such a scenario New Zealand will lose economically with no overall reduction in greenhouse gas emissions taking place (NZ Parliament, 2007).

Jeanette Fitzmons of New Zealand Green Party said that New Zealand along with the rest of the world has wasted over a decade in formulating a credible climate policy. She posited saying that the “After you.”, and “No, no, after you” approach has resulted in significant increase in greenhouse gases around the globe (NZ Parliament, 2007). According to her the climate change bill was an attempt to change this attitude but the Green Party believes that emission trading is a second best alternative. She explained, argued and advocated:

A carbon tax is a simple and fair policy which is not popular with business and industry hence political parties are reluctant to implement it. The emission trading scheme fails to make New Zealand’s largest, most profitable thereby most capable sectors of dairy and agriculture to pay for their greenhouse gas emission rather the government extends their inclusion in the ETS by five years. Extension provided to agriculture and dairy sector comes at a cost to the taxpayer. Also unlike a carbon tax the emission trading mechanism does not result in any revenue for the government. The government uses the loss of revenue or no revenue as an alibi to not support the most disadvantaged become more energy efficient. Furthermore, the Parliament has no powers to scrutinise the ETS in any manner, the minister in charge of climate change has arbitrary powers on exemption, issuance of units, auction of units and allocation plans. Overall the Green Party considers ETS a mechanism that lacks transparency and accountability on part of the Government (Jeanette Fitzmons, New Zealand Parliament, 2007p. 13789).

Rodney Hide, leader of the Act Party said that his Party was isolated in voting against the Emissions Trading and Renewable Preferences Bill as the Party believes New Zealand is acting alone on a global and collective issue. Hide shared his concerns that there is inconclusive scientific evidence on human induced climate change. By adopting a mechanism that seeks to address inconclusive scientific evidence the Government is forcing additional unnecessary costs on to business and industry said Hide. Business and industry are being forced to divert resources from areas that earn this country a significant amount of wealth to areas that are not even on the horizon. Instead of

imposing another tax the Act Party argues for investment in and development of innovative solution that reduce greenhouse gas emissions (NZ Parliament, 2007). In the Act Party's opinion emission trading is a global scam as it proposes to trade a peculiar commodity (greenhouse gases). Instead a carbon tax would be more transparent and incentivising as unlike ETS that creates property rights on greenhouse gas emissions a tax creates no such rights. A carbon tax also eliminates creation of lobby groups that argue for allocation of property rights or that of speculators who can profit from speculating price of emission units (NZ Parliament, 2007).

Other speakers too laid out their views on emission trading. After the first reading the bill was referred to the Finance and Expenditure Committee. The Finance and Expenditure Committee made 785 amendments on the proposed legislation (NZ Parliament, 2007). The bill was then put for a second reading in parliament on 28 August, 2008.

Parliamentary debate during second reading of the bill

The second reading of the climate change bill took place on the 28th August, 2008. David Parker, Minister for climate change issues for the Labour Party read amendments made to the bill. Since the first reading of the bill entry of transport fuels in to the scheme was deferred by two years in order to reduce inflationary pressures and also to reduce the pressure on individual households as the price of fuel had increased substantially in the last two years. The government extended the free unit allocation by five years and increased the number of units for forests being used as carbon sinks from 39 to 60 units per hectare (NZ Parliament, 2008). Amendments were made to support business and industry in maintaining their competitiveness and to encourage business and industry to invest and develop clean emission technology. Nick Smith National Party spokesperson on climate change in reply to Minister Parker said that the amended ETS will ensure that New Zealanders pay high costs for Labour Party ideology of being a carbon neutral country (NZ Parliament, 2008). The mechanism Smith argued is designed to ensure that large industrial businesses such as Rio Tinto and Holcim Cement close operations in New Zealand only to move to other countries as operations costs in this country would be too high. When big businesses are unable to sustain the additional costs proposed under the scheme, small and medium sized businesses will face significant additional costs with no free unit allocation to counter extra costs. Charles Chauvel of the Labour Party in response to Smith's comments said that it is imperative that New Zealand has an ETS in place or else it risks negative impact on its

export products to Europe as customers who buy New Zealand products are attaining awareness towards the environment. Customers who find that the goods they use have resulted in a negative impact for the environment will stop buying New Zealand exports. Chauvel also dismissed the idea that increase in costs will push large industries out of New Zealand as this country already offers the cheapest energy costs in the developed world to industries such as Rio Tinto or Holcim Cement. Even if an emission trading mechanism is in place it is unlikely that input costs for these emitters will rise (NZ Parliament, 2008). He noted that a number of developed as well as developing countries are designing their emission trading mechanisms so in case business decided to shift they will face costs elsewhere as well. Jeanette Fitzsimons of the Green Party argued that the decision to delay the phase out of free units by five years and the entry of transport sector in the scheme by two years shows a lack of urgency on part of the government to ensure that global warming levels are contained under the two degree threshold prescribed by the Intergovernmental Panel on Climate Change (IPCC) (NZ Parliament, 2008). Moana Mackey of the Labour Party argued that the purpose of implementing an ETS is not to ask enterprises to leave New Zealand but to “incentivise” and encourage large emitters to make changes because the government understands that big emitters are unlikely to take any action without incentives (NZ Parliament, 2008).

In the next section I provide details of the Labour Party emission trading scheme and amendments made by the National Party after winning general elections in 2008.

2.3.2 The 2008 (Labour) Emissions Trading Scheme

The Climate Change Response (Emissions Trading) Amendment Act 2008 enforced the emissions trading scheme. Under the legislation introduced by the New Zealand Labour Party following sectors were covered under proposed ETS:

- Forestry would have entered the scheme in 2008 with no exemptions
- Electricity would have entered the scheme in 2010 with a two year exemption
- Other stationary energy use that excludes electricity and liquid fuels referring to industrial plants would have entered the scheme in 2010 with a two year exemption
- Fugitive (leak) emissions would have entered the scheme in 2010 with a two year exemption

- Industrial processes of steel, aluminium, cement, glass and lime would have entered the scheme in 2010 with a two year exemption, transport would have entered the scheme in 2011 with a three year exemption
- Non-transport liquid fuels would have entered the scheme in 2011 with a three year exemption
- The agricultural sector would entered the scheme in 2013 with a five year exemption
- Waste management would have entered the scheme in 2013 with a five year exemption and solvent
- Other product use would have entered the scheme in 2013 with a 5 year exemption (NZ Parliament, 2008).

The Labour Party ETS excluded around seventy per cent of the projected emissions for commitment period 1 (CP1) under the Kyoto Protocol from reporting and paying towards their greenhouse gas emissions. The scheme only covered 102 metric tonnes of GHG emissions out of the total 386 metric tonnes of expected emissions for commitment period 1 (Bertram & Terry, 2010p.56).

Bertram and Terry (2010) note that when the Climate Change Response (Emissions Trading) Amendment Act 2008 was first considered, around 33 per cent of emissions were to be placed under the emissions trading scheme. However a 33 per cent reduction in greenhouse gas emissions or enforcement by legislation to pay for no reduction was considered harsh by business and industry. Under the argument of negative impact on economic growth industry and business argued for and were able to reduce the target to approximately 25 per cent of emissions. Further lobbying by industry and business resulted in the government doling out free units to cover around 34 metric tonnes of greenhouse gas emissions. Thereby, approximately 68 million tonnes would have been the net emissions covered under the Labour Party scheme. The sectors that received free New Zealand units were large industry and fishing under the non-transport liquid fuels and forest-weed control under forestation, pre-Kyoto forest owners (under section 71), trade exposed industries (under section 73), fishing vessel operators (under section 75)

and a contestable innovation fund¹ (under section 74). A significant amount was to be allocated to the agricultural sector once it was covered by the ETS from 2013 under section 76 (Bertram & Terry, 2010, p.109).

2.3.3 Rationale provided for free allocation (and thereby, lower coverage by ETS)

Labour Party government offered some rationale towards not implementing the original scheme it had proposed. The Labour Party government argued that it is important that forest owners received compensation as planted forests would lead to what they term as “carbon sequestration accounting” (the process of removing carbon from the atmosphere and depositing it in a reservoir). This will in turn reduce New Zealand’s Kyoto Protocol targets. Secondly, five million units were paid as compensation in order to cover deforestation on exempted areas and for landowners who had or would be undertaking forest weed control as weed control accounts for one metric tonne of carbon sequestration (Ministry for the Environment, 2009). Fishing industry was also granted free units to cover half of its 2005 emissions as compensation in order to cover its liquid fuel use for the period 2011 – 2013 as the industry would have been a part of the emissions trading scheme from 2011. Large industries were given a total of 45 million units, 20 million as compensation towards higher electricity prices and the remaining 25 million would have been allocated on the basis of grandfathering principle to cover historical emissions using the equation of 90 per cent of their 2005 level of emissions (Bertram & Terry, 2010)

2.3.4 The 2009 Amendments to ETS by the National Party Government

National Party had opposed the emission trading scheme during the second reading of the Climate Change Response (Emissions Trading) Amendment Act 2008 bill in parliament arguing that the scheme was rushed, will lead to carbon leakage which will severely affect New Zealand industry and business along with job losses. The National Party won the 2008 general elections. It did not abolish the proposed Labour Party climate policy. However, it significantly amended the emission trading scheme. In this section I discuss crucial amendments by the National Party government to the policy.

The most significant amendment made by the new government was reduction in the amount of Assigned Amount Units (AAUs) that industry and business covered under

¹ The Labour Party also implemented a contestable innovation fund under which 150,000 carbon units are accessible to certain entities in the industrial sectors, trade exposed businesses and stationary energy sector. The innovation fund is an incentive towards development and uptake of innovative technology that will significantly reduce industrial emissions.

the scheme must surrender towards commitment period 1. The amendment reduces the amount by half to 54 units instead of the 102 million proposed by Labour Party government in 2007 (NZ Parliament, 2008b). As pointed out in section 2.3.2 of this chapter, surrender of 102 million units under the Labour Party ETS only covered 25 per cent of New Zealand's Kyoto Protocol targets. Reducing this amount to 54 million units will only cover 14 per cent of the projected emissions under commitment period 1 (NZ Parliament, 2008b).

A separate grant of free AAUs to large scale industry to compensate for higher electricity prices was halved. Entry of transport, electricity, non-liquid stationary energy and other stationary energy sector was extended by six months along with two-and-a-half year exemption while entry of liquid fuels brought forward by six months to provide a joint start date of July, 2010. Free unit allocation to fishing sector increased from 188,000 to 700,000 units (NZ Parliament, 2008b). The entry of forestry sector was left unchanged in 2008 along with the exemptions. Industrial processes of steel, aluminium, cement, glass and lime entered the scheme in July, 2010 instead of January, 2010 with a two-and-a-half year exemption. Transport entered the scheme in July, 2011 with a two-and-a-half year exemption. Non-transport liquid fuels entered the scheme in July, 2011 with a three year exemption. Agricultural sector enters the scheme in 2015 with a five year exemption. Waste management enters the scheme in 2013 with a five year exemption and solvent and other product use enters the scheme in 2013 with a five year exemption. The innovation fund proposed by the Labour Party Government was scrapped under the amendments by the National Party (Ministry for the Environment, 2009).

The National Party government by reducing the amount of AAUs that emitters must submit towards their emissions and delaying entry of most sectors in to the scheme further diluted the effectiveness of the scheme to achieve any serious reductions in greenhouse gas emissions.

2.3.5 Rationale provided by National Party government for amendments

The National Party government argued that it had to amend emission trading scheme in order to ensure that New Zealand did not face job losses and to keep the costs of adapting to this new mechanism at a bare minimum. Amendments were also required so that New Zealand takes a responsible approach to the global issue of greenhouse gas emissions and climate change. The policy should encourage and incentivise business

and industry to reduce their carbon emissions. The National Party believes that emission trading scheme proposed by the Labour Party encouraged business and industry to move overseas (Ministry for the Environment, 2009). Amendments by the government seek to address this gap. Amendments have also been made to take into account the global economic recession that New Zealand along with the rest of the world is currently experiencing. Sector specific changes have been made to ensure that sectors which have access to clean technology participate as early as possible in the scheme so that these sectors can make use of incentives available under the mechanism to reduce their emissions. Sectors such as agriculture, which is New Zealand's largest exporter and also largest greenhouse gas emitter but does not have the necessary technology available at hand to reduce its emissions, should be allowed sufficient time to research and develop low emission technology. The government recognises the magnitude of the challenge at hand but is also concerned about the costs of developing low emission technology which are sector specific. It would like to assist the agriculture sector in reducing emissions by taking a realistic approach (Ministry for the Environment, 2009).

2.3.6 Greens and New Zealand Climate Policy

The New Zealand Green Party has and continues to push for environmental policies based on minimum or zero emission level. The Green Party has since 1993 pushed for a carbon tax. It was responsible for introducing and gaining majority support towards the Energy Efficiency and Conservation Act in 1998. In 2000 the Party achieved \$15 million green package to spend on organics, energy efficiency, legal aid, environmental organisations, bio security and smoking cessation programmes (Green Party, 2010b). The Green Party argues that an emission trading system is highly politicised due to the allocation of free AAUs that carry dollar value, is complex to administer and chances are it will not have any effect in reducing New Zealand's emissions for commitment period 1. The Green Party argued that by limiting the emission trading scheme to large emitters the complex and politicised process of free allocation can be eliminated. This elimination will also lead to revenue generation from the ETS which can be used to fund energy efficiency and other support programmes to assist ordinary New Zealanders in adapting to higher energy prices (Green Party, 2010b). In case AAUs continue to be given free of charge the end result would be transfer of wealth from tax payers to big business. Also, allocating a price on greenhouse gases only encourages speculation and money from such speculation can never be used for productive purposes (Green Party, 2010b).

After significant amount of debate and discussion with the Labour government, the Green Party achieved one of its objectives. Due to the Green Party's initiative the government decided to exclude cheap Eastern European carbon units from the New Zealand ETS. The Eastern European carbon credits were cheaper as these were from economies that were not experiencing major industrial activity since the collapse of the Soviet Union. This way polluters that cross their greenhouse gas emissions targets will either need to purchase units from local or international sellers at market prices (Green Party, 2010b).

2.4 Public Perception

This section of the chapter focuses on the role of public perception in the government's decision to implement an ETS.

The New Zealand Institute of Economic Research (NZIER) along with market research company TNS conducted nationwide online surveys in 2008. The purpose was to assess the awareness, understanding and opinion of the proposed ETS. The outcome of the survey indicated that a third of New Zealand's population strongly believed that climate change is factual with 38 per cent of participants strongly believing that human beings have had a direct impact on climate change. The poll also asked participants if they were aware of the emission trading scheme. More than half of the participants were aware of ETS; quarter of those interviewed had some idea and a third considered they were competent enough to support the ETS. Once participants were fully informed of the benefits and costs associated with ETS 77 per cent supported it with eight per cent supporting the scheme strongly. All participants expressed their concern on price rise due to ETS, the impact of implementing ETS on the economy and New Zealand business, possible loss of jobs and the pace of implementation of the scheme (NZIER, 2008).

In 2008, DigiPoll conducted a poll on the New Zealand government's plan to introduce an emission trading scheme towards mitigating climate change. Out of 514 people interviewed, 34.2 per cent of the respondents supported the government's decision while 24.3 per cent opposed it. The remaining (two in five respondents) did not have strong emotions towards the decision (Fallow, 2008).

Research New Zealand conducted interviews with 501 participants in 2010 in order to gauge a change in public perception and acceptance of ETS. It found that the New Zealand population is divided on whether the country should implement an ETS or not.

49 per cent of the participants in the survey were in favour while 44 against an ETS. In September, 2010, UMR research conducted a poll to ask if participants believed that climate change is happening and if it is caused by humans. Around 45.8 per cent of the participants in the poll believe that climate change is happening and that it is because of human activities, 32.7 per cent think that climate is changing however, are unsure of what causes it and 19.8 per cent do not believe a problem exists (New Zealand Herald, 2010, 20 September)

Internationally, the German magazine *Der Spiegel* conducted a poll in June, 2010 and found that only 42 per cent of Germans believed that climate change was human induced as compared to 62 per cent in 2006. The BBC conducted a poll in the United Kingdom and found that 26 per cent of its respondents agreed that climate change is a human cause scenario as compared to 41 per cent a year ago (Bernett, 2010). Similar public sentiment was visible in a poll published by Pew Research Centre². In its survey of Americans the centre found that the percentage of citizens who thought that there was evidence of rising global temperatures had gone down from 71 per cent in April, 2008 to 57 per cent when the poll was taken in October 2010. The percentage of people who believed that global warming was a result of human activity also decreased from 47 per cent to 36 per cent (The Pew research Center, 2010). Similar trends were noted by *the Economist* in Europe and Australia. In a poll published by the European Commission in 2009 the number of residents who considered climate change as a major problem dropped from 62 per cent in 2008 to 50 per cent in 2009 (European Commission, 2009). Similarly, in Australia a poll conducted in July, 2009 by the Lowe Institute showed a significant drop in the percentage of people willing to pay towards tackling global warming. Only 48 per cent accepted higher costs as compared to 60 per cent in 2008 and 68 per cent in 2006 (The Economist, 2009 *online edition*). This drop in percentage of people believing in climate change and whether it is caused by human activity can be due to the economic recession that began in 2008. This can be extrapolated from a recent opinion poll conducted by *the Guardian* newspaper in the United Kingdom in which 83 per cent of Britons who participated in the poll considered climate change as a threat (Jowit, 2010).

Poll results shown above represent the views of a small percentage of the New Zealand and international population in the past six years. The difference in response can be

² The Pew Research Centre for the people and the press is an independent, non-partisan public opinion research organization that studies attitudes toward politics, the press and public policy issues. In this role it serves as a valuable information resource for political leaders, journalists, scholars and citizens.

attributed to various factors, critical amongst these factors is the global economic recession and the strong campaign against the existence of climate change by those who think that scientific evidence on climate change is inconclusive. The polls also show a lack of consensus amongst voters. Until and unless there is strong consensus amongst voters it is unlikely that a serious political response to climate change will be on offer. One can see that due to lack of consensus amongst voters New Zealand governments have over the past 20 years made several claims about steps to reduce greenhouse gas emissions however no credible policy was implemented to achieve the claims.

2.5 Effect of Economic Imperatives on New Zealand's climate policy

This section discusses the effect of economic growth on New Zealand climate policy. Economic growth in the sectors of tourism and agriculture is discussed as the two sectors are major export earners for New Zealand.

2.5.1 Impact on New Zealand Tourism due to inclusion of aviation in ETS

At this stage New Zealand ETS does not include the aviation sector thereby any significant effect on tourists travelling within New Zealand is unlikely. However the European Union has announced its decision to include the aviation sector in its ETS (Ares, 2011). The European Union is one of New Zealand's largest tourism markets. In its March, 2011 information released by Statistics New Zealand advised that visitor number from United Kingdom alone have continued to decline in almost every month since April, 2007. It noted a decline of 6800 visitors from the United Kingdom as of March, 2011 as compared to April, 2007. The annual visitor arrivals to New Zealand were 2.507 million for year ending March, 2011; a minor increase of 7,500 visitors as compared to 2010 when the number stood at 2.499 million (Statistics New Zealand, 2011). Due to the inclusion of the aviation sector any flight landing or departing from any European Union airport will need to purchase carbon units. This will apply to New Zealand based airlines such as Air New Zealand or other airlines that bring in visitors from Europe. When airlines pay towards their emissions it is inevitable that additional costs will be passed on to their consumers. This is likely to have a severe impact on already declining passenger numbers to New Zealand from Europe. Up to what degree has this concern influenced the New Zealand government's decision to implement ETS?

On 24th October, 2008, the European Union justice ministers approved the inclusion of aviation in its ETS (European Commission, 2011a). The commission argued that inclusion of aviation is a necessary step to reduce greenhouse gas emissions as the

sector currently contributes 3.5 per cent of total human activities that contribute to climate change (aircrafts emit carbon dioxide, nitrogen dioxide, water vapour and sulphate and soot particles). The IPCC adds that greenhouse gas emissions from the aviation sector will rise to 5 per cent by 2050 in case business as usual was to continue (IPCC, 2007, p 249). According to the European Commission all flights operating within the European Union will participate in the European ETS from 1 January, 2012 (European Commission, 2011b). The scheme will be extended to all airlines regardless of their country of origin from 1 January, 2013 when the third phase of European ETS begins. In order to provide airlines time to adapt the commission has fixed the cap on existing emissions at 97 per cent of average greenhouse gases emitted by the sector between the years 2000 – 2006 (European Commission, 2011b). This means that based on the grandfathering principle airlines will be compensated 97 per cent towards the average emissions. This cap will subsequently be lowered in each year of the third phase (2013 – 2020). From 2013 or the start of third phase of the scheme the commission will auction 15 per cent of the total AAUs allocated to aviation.

The aviation sector claims that its inclusion in the ETS will have significant economic, social and trade impact. Questions such as how to determine the actual cap of emissions, who to apply it to and how to distribute the allowance are critical in determining the true costs of participation of the sector (Pricewaterhouse Coopers, 2011). Françoise Humbert, Head of Communications at the Association of European Airlines said that emissions trading scheme places added cost burden on airlines and due to strong competition that exists in the aviation sector airlines may not pass extra costs of emissions trading on to the passengers. This will directly affect their profit margins and growth projections. Airlines will need to look in to other avenues to reduce costs such as reducing number of employees, the number of routes that airlines fly on or closing down some routes completely. Reducing the number of flights or closure of routes will lead to revenue loss for airlines and increase in fare for passengers (Euractiv, 2011). The Air Transport Association of America and United States Federal Aviation Administration consider the inclusion of all airlines (*regardless of their base*) in to the scheme as a means of subsidising the costs of emissions trading on the European Union Aviation industry. Transport Association of America argued that the decision to include all flights departing from or originating of a European airbase undercuts rather than supports international efforts to implement system improvements to manage the impact of aviation emissions (Euractiv, 2011).

The European Commission acknowledged that including aviation in an emission trading scheme is an unprecedented and complicated task. However, the commission assured that decision on inclusion of aviation in the ETS was not made lightly. The commission had undertaken multiple assessments to identify any impact on the European economy, airline competitiveness, employment opportunities and consumer demand. Each of the assessment reports have ruled out any significant impact to the European economy or to the competitiveness of the airlines as the commission is aware that all airlines are in a capacity to and will most likely pass extra costs on to their customers. Neither is the inclusion likely to have any negative impact on employment opportunities. The reports however, do expect a minimal reduction in the rate at which the demand for airline and aviation services grows. The commission expects this reduction to be around 0.1 – 2.1 per cent (European Commission, 2011c, p 67). Inclusion of aviation is critical as residents of the European continent do not deserve further GHG emissions. The inclusion is unbiased as the European Commission intends to include emissions from other forms of transport (from large emitters such as shipping companies to individual emitters such as car users) in to the scheme (European Commission, 2011c).

Airlines claim that multiple impact assessments carried out by independent organisations have ruled out any positive reduction in greenhouse gas emissions even if aviation is a part of the emissions trading scheme. Airlines argue that inclusion of aviation creates significant administrative and accounting issues both for airlines and the commission (Pricewaterhouse Coopers, 2011). For instance even though inclusion of aviation in European emission trading scheme begins in 2012 airlines will need to ensure that they voluntarily comply with the scheme from 2010 in order to receive free AAUs. Voluntary compliance involves monitoring of revenue per ton kilometre, preparing detailed reports and recording consumption of fuel by each flight to calculate the dollar value of greenhouse gases emitted. The procedures involve significant monitoring and reporting not just for the airlines but for the European Commission as well. The burden on both airlines and commission in terms of cost will be significant and in opinion of the aviation industry quite unnecessary (Pricewaterhouse Coopers, 2011; Euractive, 2011).

This decision by the European Union raises questions on how to maintain a balance between environment and trade. It requires reflection on the effect of increased costs required to mitigate climate change as the European Union is the only continent to include aviation in the ETS. There is high probability that the European Union may

experience a significant decrease in the number of tourists and visitor numbers or non-European Union airlines may decide to stop operating from European Union airports. For instance the impact of including aviation in EUETS is visible in the visitor statistics provided by Statistics New Zealand (2011). Any further increase in the costs of flying to New Zealand will only discourage the number of visitors. This has started to impact New Zealand's tourism exports as March 2011 visitor's rate to the country were down by 11 per cent (Statistics New Zealand, 2011). To counter this negative growth the New Zealand government has decided not to include air travel under the ETS.

2.5.2 Impact on New Zealand Agriculture and Dairy Sector due to inclusion in ETS

The fact that New Zealand's economy depends so much on agriculture means, if the country is to achieve its Kyoto obligations there has to be a significant reduction in its agricultural greenhouse gas emissions. However, the agriculture sector is critical to the New Zealand economy as one third of the country's total exports are from agriculture. In 2005 the agriculture sector contributed \$5.6 billion (approximately 4.5 per cent) to New Zealand gross domestic product. It also employs 82,440 people (over 2 per cent of the population) (Ballingall & Lattimore, 2004). However, the sector is also responsible for over half of New Zealand's greenhouse gas emissions. Therefore it represents a major challenge for decision makers on how to reduce GHG emissions in this sector without reducing output (Lennox, Andrew & Forgie, 2008).

Earlier attempts to implement a tax in order to force farmers to reduce their emissions have not been successful. For instance a carbon tax proposal was announced in 2002 to start in 2007 however due to lack of political support, strong opposition from the agricultural sector and extensive negotiated exemptions that would have undermined the purpose of a carbon tax the proposal was cancelled (Kerr & Street, 2008). However as New Zealand ratified the Kyoto Protocol in 2002 and accepted international obligation to reduce its emissions to 1990 levels it must either reduce its GHG emissions or pay towards excessive emissions.

Over the years New Zealand farmers have intensified their farming operations. Due to intensification the average size of dairy farms has increased twofold to 338 cows and 121 hectares in 2007. Intensification in dairy farming lead to better productivity but higher productivity of farm animals also increased nitrous oxide emissions caused from chemicals and fertilizers used in pasture production. The amount of nitrogenous fertilizer used increased by 824 per cent between 1990 and 2005, with phosphate usage

rising by 121 per cent causing significant increase in New Zealand's greenhouse gas emissions (Jiang, Sharp & Sheng, 2008; Barber & Pellow, 2005).

The sector claims that increase in costs due to ETS may eventually lead to greenhouse gas reduction. However, unless other countries include agriculture in their climate policy the comparative advantage of New Zealand agricultural exports will suffer and there will only be an insignificant reduction in greenhouse gas emissions worldwide. Leakage suffered by agriculture is likely to have a negative impact on the New Zealand economy with no visible gains towards the environment. Saunders & Saunders (2010) point out that the impact on farmers at present is bearable with a livestock farm paying an extra \$4,000 a year while an arable farm paying an extra \$7,000 a year. However, this estimated increase in costs is likely to go up in case there is no change in technology or the price of carbon increases. Under the ETS, the sheep and beef farmers are obligated to pay 50 per cent of their liability by the year 2050. This means that the costs for sheep and beef farmers will increase by thirty-three per cent while for dairy farmers the increase in costs will be eleven per cent and for arable farmers four per cent. The impact of increased cost, though high for dairy and arable farmers is not as high as for sheep and beef farmers (Saunders & Saunders, 2010).

In order to address these concerns the National Party government made further amendments to emission trading scheme in 2009. The amendments postponed entry of agriculture sector in to the scheme from January 2013 to 1 January 2015. Also, in order to make it easier for farmers to adapt to increased costs, the government setup a transition phase. The transition phase begins from December, 2012. It allows participants to surrender one emission unit for every two tonnes of carbon as compared to the normal scheme where participants must surrender one emission unit for every tonne of carbon (Ministry for the Environment, 2011a). As the agriculture sector is responsible for more than 48 per cent of New Zealand's greenhouse gas emissions the government must ensure consistency in efficiency and equity benefits for all sectors of the economy by asking the sector to participate in the ETS. Kerr and Street (2008) argue that the emergence of an open, viable, liquid, and accessible international market and free trade of units among participants will provide farmers the necessary incentives to reduce their emissions and offset the increased costs. It will also help farmers maintain their exports as many consumers who consume New Zealand exports prefer products that do not harm the environment.

Agriculture and dairy products are significant to the New Zealand economy in terms of exports and the number of people employed but the amount of greenhouse gases emitted by the sector amounts to nearly half of New Zealand's total greenhouse gas emissions (Jiang, Sharp & Sheng, 2008). New Zealand must ensure a balance between its economic and environmental priorities. In order to maintain this balance the government chose an ETS so that it can provide high growth sectors such as agriculture with time to adapt towards future costs of GHG emissions. New Zealand dairy and agricultural products are in demand resulting in substantial profits for farmers over the years. Farmers continue to earn considerable revenues from their exports and are in a strong position to plan for future GHG bills.

2.6 Environmental Considerations as a factor in New Zealand Climate Policy

Discussions and debates on climate change tend to focus on economics, trade, business and industry competitiveness, the impact of climate change on human beings and how climate change is going to affect our future generations. One of the most critical areas that must be taken in to account while formulating an effective climate policy is Earth's biodiversity. Dictionary meaning of environment reads - the surroundings or conditions in which a person, animal, or plant lives or operates. The online business dictionary defines environment as "the sum total of all surroundings of a living organism, including natural forces and other living things, which provide conditions for development and growth as well as danger and damage" (Business Dictionary, 2011). At the start of this section I outlined some of the key words found in contemporary climate policy. In comparing key words in climate policy to the definition provided by a dictionary one can read that the climate policy lacks concern towards biodiversity.

Biodiversity refers to species of plants, animals, and microorganisms along with different ecosystems on our planet such as deserts, rainforests, and coral reefs. An inclusive climate policy must take in to account the effect that climate change has had on biodiversity and the means to minimise and eliminate any further damage. Biodiversity is important as it boosts productivity of our ecosystem. For instance greater number of plant species means greater variety of crops, greater species of diversity ensures natural sustainability for all life forms and healthy ecosystems can better withstand and recover from a variety of natural or manmade disasters. Changes in ecosystems are consistent with changes in local climate, climate alterations can affect ecosystems. Scientists claim with some certainty that changes in climate conditions have altered the genetic composition of some of these species and based on their

extensive research have recognised climate change as the main driver of past and future species extinction (McGlone, Walker, Hay & Christie, 2010). The larger issue that climate change poses is that its global meaning that its effects are large scale and capable of affecting entire ecosystems on our planet. Hof, Nilsson and Jansson (2011) argue that current efforts to conserve biodiversity are targeted at species that may already be obsolete. Levin (2007) says that mitigation of greenhouse gas emissions that cause extinction of species should be the primary goal of climate policy. However, any targeted measures towards biodiversity conservation are found lacking and slow to take form in contemporary climate policy. Current climate policy does not incorporate precautionary targets and timetables that contend with the magnitude of the problem rather the prerogative is left on biodiversity to protect itself against climate change. Species that have high tolerance to change in their natural surroundings have escaped extinction while those with low or no tolerance levels are either threatening extinction or are already extinct. Inevitably some species will need to move and adapt to more enduring regions. This movement of species will affect ecosystem composition and have adverse impacts on food chain and community dynamics, presenting new challenges to biodiversity management and conservation (Hof, Nilsson & Jansson, 2011; Levin, 2007).

Human activities such as land conversion (agricultural/forest land converted to industrial/residential land), pollution, habitat destruction and overexploitation continue to leave ecosystems and biodiversity more fragile in a changing climate. That is why it is critical to place biodiversity at an equal pedestal with economics and intergenerational justice. Governments, while designing climate policy, need to take a two-pronged policy approach employing the tools of mitigation and adaptation in order to control future environmental degradation as mitigation will attempt to reduce greenhouse gas emissions while adaptation³ will increase biodiversity resilience. Such an approach increases our chances of conserving most species of bio-diversity (Dharmaji et al, 2003). Proponents of a growth centric approach choose to neglect biodiversity but they must realise that the largest benefactor of protecting habitat and species are and will be human communities as ecosystems and biodiversity constitute food, water supply, and medicine along with water filtration systems and arable land

Animals, plants and all life forms have equal right to the planet as us human beings. By no means then humans have the sole right to take decisions that alter the planet. Human

³ Adaptation in this context refers to the progression of humans and ecosystems to new environments caused due to climate change.

beings make decisions depending on their ever increasing consumer needs without any consideration towards significant negative impact their decisions have had to planet Earth's biodiversity. Some of it is already extinct and most of it stands to be extinct in case human beings do not change their attitude to respect the rights of other species. The capacity of planet Earth to handle degradation caused due to our growth-centric attitude has reached its peak and will inevitably start to affect our lives just as it has affected life of plant and animal species. Now that a time has reached where lives and existence of human beings is being threatened one can hope that appropriate policies that address these causes would be implemented.

2.7 International Relations as a factor in New Zealand Emission Trading Scheme

First serious worldwide political recognition of changing climate was in 1988 (Agrawala, 1998) when governments of the world collectively setup the Intergovernmental Panel on Climate Change (IPCC). From 1988 onwards the New Zealand government has been a part of a series of international convention and agreements aimed at developing effective policies on a multi-lateral basis. In 1992, New Zealand ratified the Framework Convention on Climate Change (FCCC). The convention provided a legal framework towards international cooperation on emissions reduction and placed legal obligations on parties to act as per their individual discretion. Five years later in 1997, New Zealand along with other Annex I countries negotiated formal emission reduction targets under the Kyoto Protocol. In 2002, New Zealand ratified the Kyoto Protocol committing itself to either reducing its emission levels to 1990 or pay costs towards the difference. This reduction is to be achieved by the end of commitment period 1 (CP1) in 2012 (Bertram & Terry, 2010)

Even though New Zealand emits 0.2 per cent of the global emission this is not an excuse to avoid action because no single country can mitigate climate change alone. Climate change is a global issue that requires a collective global response. The decision of the New Zealand government to be a part of an international agreement on mitigating climate change is a part of its overall strategy of general reliance on multilateral solutions to global problems that affect New Zealand. With increasing importance being placed on reducing greenhouse gas emissions in order to protect the environment in the time to come international climate change obligations will be more stringent. By being a part of international efforts, it is in New Zealand's best interest to take early action towards reducing its greenhouse gas emissions as sooner or later international political agreements will require New Zealand to restructure its economic reliance on fossil fuels

and carbon emitting activities (Bertram & Terry, 2010; Ministry of Foreign Affairs and Trade, 2002). It was critical for New Zealand to ratify the Framework Convention on Climate Change and the Kyoto Protocol in order to protect its international reputation and the *100 % pure* New Zealand brand. Any damage to New Zealand 100 per cent pure image may affect its exports and economy as customers who start to perceive New Zealand as a country that does not care about environment and ecosystems may stop purchasing its exports. Thereby the overall damage to New Zealand of not ratifying would be too great a cost (Bertram & Terry, 2010). By deciding to sign and ratify the Kyoto Protocol, New Zealand managed to maintain its clean, green and environmental image in the eyes of overseas markets and consumers. It maintained the credibility and value of the New Zealand brand (Ministry of foreign affairs and trade, 2002). Also, national interest analysis conducted by the New Zealand Government before ratifying the Kyoto Protocol indicated that its economy would profit by committing to global response on climate change. The evidence of the analysis was visible at the time of implementation of New Zealand emission trading scheme the New Zealand Stock Exchange almost doubled in value (Bertram & Terry, 2010). Further, the decision also sends a credible signal about the direction of New Zealand's future climate policy and assists its enterprises and citizens in adapting to higher costs.

International trade implications of not ratifying the Kyoto Protocol were observed by economic commentator Brian Fallow:

It is often argued that because New Zealand is a tiny contributor to global warming (in absolute terms, certainly not per head) it does not matter what we do. So we might as well do nothing. Apart from being ethically unedifying, this approach assumes that free riding would be costless. Fat chance. At the moment 27 per cent of New Zealand's exports are to countries that have accepted obligations under the Kyoto Protocol. If Australia joins, it will be nearly 50 per cent (*NZ Herald online edition, 2007*).

2.8 Conclusion

This chapter forms the foundation of this thesis. It briefly considered a range of factors that contribute to our understanding about New Zealand's decision to implement an ETS. Based on literature analysed in this study one can say that multiple factors and multiple stakeholder views had to be considered before the government could make a decision.

Even though some people argue that science is unable to provide conclusive evidence that climate change is an imminent threat to our planet Earth, uncertainty can no longer

be used as an excuse to not act. New Zealand policy makers have had discussions on climate policy implementation for more than two decades and finally implemented an emission trading scheme in 2007. There is little doubt that international trade and international relations were central to New Zealand government's decision to implement an emission trading scheme. Apart from international relations the scheme was implemented as it provides enterprises with time and flexibility to adapt to future costs of climate change. It is an opportunity for enterprises to reduce their GHG emissions and generate profit from trade of permits. Rather than adapting a negative outlook towards the mechanism, all sectors should embrace it and use the mechanism as an incentive towards reducing their greenhouse gas emissions, developing innovative solutions to reduce greenhouse gas emissions within New Zealand (pioneering technology that can be shared with rest of the world), to drive growth of the economy and jobs while using renewable energy sources and to profit from trade of carbon units. A change in attitude and thinking is also required in terms of how climate policy is being framed. The need to take a more balanced approach where human beings respect the rights of others is critical in modern climate policy.

The discussion in this chapter will form the basis of the proceeding chapters of this thesis with the larger aim of enriching our understanding of New Zealand and international climate policy in order to identify gaps.

Chapter Three: The Influence of Political Ideology

3.1 Introduction

Discussed in previous chapters were factors that formed the basis of New Zealand government's decision to implement an emission trading scheme. Critical amongst other factors was political ideology. In this chapter I discuss the influence of neo-liberal political orientation on New Zealand's chosen climate policy. This chapter defines and explains neo-liberalism across the political spectrum in order to identify common features.

3.2 Definition of Neo-liberalism

Noam Chomsky (1999) calls neo-liberalism the defining political economic standard of the contemporary world. Neo-liberalism refers to a set of principles based on new and classical liberal ideas that help a handful of private interests to maximise their control on social life in order to maximise profits (Chomsky, 1999).

David Harvey defines neo-liberalism as

[A] theory of political economic practices that proposes human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices. The state has to guarantee, for example, the quality and integrity of money. It must setup those military, defence, police and legal structures and functions required to secure private property rights and to guarantee, by force if need be towards the proper functioning of markets. Furthermore, if the markets do not exist (in areas such as land, water, education, healthcare, social security or environmental pollution) then the state must create such markets by state action if necessary. However, beyond these tasks the state should not venture. State intervention in markets (once created) must be kept to a bare minimum because, according to the theory, the state cannot possibly possess enough information to second-guess market signals (prices) and because powerful interest groups will inevitably distort and bias state interventions (particularly in democracies) for their own benefits (David Harvey, 2007, p. 2).

Ludwig von Mises, one of the last members of the Austrian School of Economics, writing in his book *Human Action*, defined neo-liberalism as the theory of choice.

Choosing determines all human decisions. In making his choice, man chooses between various material things and services. All human values are offered for option. All ends and means, material and ideal issues, the sublime and the base, the noble and the ignoble, are ranged in a single row and subjected to a decision which picks out one thing and sets out another. Nothing that men aim at or want to avoid remains outside of this arrangement into a unique scale of graduation and preference. The modern theory of value widens the scientific horizon and enlarges the field of economic studies (Mises, 2008, p. 3)

Both definitions highlight that neo-liberalism supports minimalistic government intervention in the activities of private business or the life of an individual. Rationality,

utility maximisation, individualism, the primacy of the individual over the collective, private property rights, free markets, free trade and minimalistic government intervention leading to profit maximisation are the standing characteristics of neoliberal school of thought. How did neo-liberalism take shape? The rest of the chapter critically examines the evolution of neo-liberalism.

3.3 Evolution of Neo-liberalism

Harvey (2007) suggests that neo-liberalism is not a new idea. It re-emerged after countless experiments with social democratic and welfare state policies. Neo-liberalism attempts to propose contemporary solutions to age old challenges that any contemporary government encounters. Devine argues that legal, political, economic and technical structures of governance currently practised in most nation states were written and designed by the canon lawyers of the Christian Church as early as the 13th Century (Devine, 2004). The challenges faced by governments historically were similar to the challenges in contemporary governance. The thirteenth century solutions to address the challenges of governance were pragmatic as well as ethical and took into account the role of the government, role of law, poverty, markets and individual behaviour. Neo-liberalism takes in to account most of the parameters that the canon lawyers had attempted to address, but unlike the Christian Church and canon lawyers who had based their ideas on religion, neo-liberals base their ideas on self-interest (Devine, 2004). Before being termed neo-liberalism the theory was known as liberalism.

3.3.1 Liberalism

A Scottish economist and philosopher, Adam Smith, published his first book in 1776 titled *The Wealth of Nations*. In this book, Smith proposed the idea of liberalism by discussing a system of perfect liberty or a system of natural liberty. Liberalism, as discussed by Smith, highlights individual freedom and a self-regulating market. Smith argued that wealth creation takes place only when an individual is self-interested. Smith uses the metaphor of the invisible hand to explain the functioning of the markets. He argued that in medieval times the invisible hand was the hand of God. God using the invisible hand guided monarchs on how to ensure the well-being of their citizens. Smith compared markets to the invisible hand of God as markets ensure the well-being of citizens who transact in the market. He argued that when two or more self-interested individuals transact in a market their self-interest acts as the invisible hand of God and ensures best returns for each (Devine, 2004; Peters & Marshall, 1999).

3.3.2 Revival of Liberalism (Neo-Liberalism)

The First World War followed by the Great Depression of 1930s and the Second World War in 1945 led to drastic changes in the political, cultural and social order of the world. The great depression of 1930s is considered as the deepest economic depression, as during this time there was unprecedented decline in trade and commerce leading to large scale unemployment in most countries across the world. World War II resulted in loss of millions of lives across the world. These three events played a significant role in shaping the role of governments as the major or perhaps the only solution for world stability, peace, job creation and social welfare. Governments collectively decided that in order to prevent reoccurrence of war or any further slump in the world economy a mixed economy system of economics - a mixture of state, market and democratic institutions be implemented to ensure peace, inclusion, well-being and stability in the world economy (Chang, 2003; Dahl & Lindblom, 1953). Policies were designed and implemented to counter the series of market failures. Welfare economics, Keynesianism, social democratic and early development economics guided the economic and social policy of the time (Chang, 2003; George, 1999). Institutions such as the United Nations, the World Bank, and the International Monetary Fund along with free trade policies were created after the Second World War to ensure peace, well-being and stability in the world economy (Chang, 2003; George, 1999). Implementation of a mixed economic system and creation of institutions in order to counter market failure did not provide liberalism or liberal thinkers much of an opportunity to put their agenda on the table.

In 1947, Professor Friedrich von Hayek a University of Vienna trained economist organised for 36 economists, historians and philosophers to meet at Mont Pelerin, Switzerland, in order to discuss and exchange ideas on the current and future state of liberalism (Howard, 2010). This meeting formed the basis of revival of liberalism except that the state of the world economy could not provide Hayek and his colleagues with a ground to test and implement ideas of liberalism. Around 1960, due to saturation in industrialisation, unemployment and inflation started to rise. The experiments conducted with creation of international institutions (UN, World Bank, IMF) and free trade policies were now considered a failure. Welfare economists again proposed that nation state should intervene in order to curb inflation and generate jobs as any ideas about the markets making social and political decision or that the state should reduce its role were not prevalent . However, this was the kind of opportunity that liberal thinkers

and intellectuals sought to further their liberal agenda. Liberals opposed the idea that the nation state should intervene to control inflation and generate jobs. Liberals argued that, in case the nation state is to take over the role of a market, it is interfering in the market system. Interference with markets is against the values of Western society of free speech and individual freedom. By intervening in a market the nation state is restricting an individual's right to free speech and freedom and along with it growth of business and enterprise thereby restricting wealth creation (Howard, 2010).

Liberals opposed the state as they believed that a state is an organisation which is run by self-serving politicians and bureaucrats, who are limited in their capacity to collect information, formulate and implement effective policies and work under pressure. As the state is a self-serving entity it suffers from *rent capture* - seeking returns without investing money or efforts and *provider capture* - policy creation that does not lead to profit and wealth maximisation (Virmani, 2002). Therefore, the state is bound to fail in its attempt to create an inclusive, equitable and ethical society. Liberals claim that costs incurred due to failure of the state are much higher and affect millions of individuals than the costs of market failure. Therefore, it is in everyone's (individuals, collective organisations, entrepreneurs and enterprises) best interests to prioritise the market over the state by liberalising and deregulating economic enterprises and privatisation of the state-owned enterprises and state-provided social services (Devine, 2004). In comparison to the state, a market is the purest form of democracy as it is a process of wilful exchange (Heynen & Robbins, 2005). The exchange takes place under the rules and regulations setup and obeyed by the buyer and the seller. Anyone is free to join in and withdraw at any time. Only the buyer or seller can affect the price and decide on what type of goods or services can be exchanged in the market. The market is efficient as it ensures allocation of scarce resources. But in case the government decides to take any action or setup laws/regulations that increase costs, state is interfering in efficient and equitable function of the market (Jessop, 2002). The role of a government within a market is to ensure integrity of the market. The state must not interfere in how markets function as markets create wealth, which has positive effects not just for buyer and seller but also in poverty alleviation, improvement in the quality and quantity of health care and addition of a number of social welfare programmes (Jessop, 2002).

Liberals worked gradually towards promoting their ideology. They used the notion of *cultural hegemony* - if you occupy people's heads their hearts will follow - proposed by Antonio Gramsci, a Marxist philosopher to promote their thinking (Lee & McBride,

2007). Liberals taught at various academic institutions, created international networks of foundations, institutes, research centres, publications, scholars, writers and public relations advisors in order to develop and push their ideas persistently (George, 1999). By keeping themselves in people's heads, liberals were making significant ideological and promotional efforts to present liberalism to the contemporary world and to make it seem like the invisible hand of God and the only economic and social order (George, 1999). Margaret Thatcher a student of Friedrich von Hayek came to power in Britain in 1979 and publicly started advocating the ideas of a liberal society. Thatcher argued that competition amongst nations, regions, firms and individuals is important as this leads to best results (George, 1999). Competition leads to allocation of resources with greatest possible efficiency. She provided liberals with the opportunity to change the British governance structure from Keynesian to neo-liberal with her proposed TINA – *there is no alternative* framework (George, 1999).

3.4 Neo-liberalism and New Zealand

The structural adjustment of New Zealand started with the election of the fourth Labour Party government in 1984. Political elites of New Zealand began a powerful and rapid transformation of New Zealand, turning the economic structure into a free market economy. Kelsey (1997) argues that neo-liberalism transformed New Zealanders from citizens of a social democracy to individual consumers in the commercial market place, individuals who are driven by self-interest and are responsible only for ourselves. The basis of this transformation or 'structural adjustment' is the 'ideational consensus' by elites of political parties, the bureaucracy, private sector, media, unions and powerful interest groups on neo-liberalism that individual self-interest must take precedence over collective interests (Kelsey, 1997). Once this consensus was reached upon, changes were visible in all sections of New Zealand.

Some of the most immediate effects of this structural adjustment were devaluation of the currency by 20 per cent followed by deregulation of the financial markets, removal of exchange rate controls and free floating of the New Zealand dollar (Marshall & Peters, 1999; Devine, 2004). Export and domestic subsidies were abolished along with import licenses. Restrictions were no longer placed on foreign direct investment under \$10 million while approvals from Overseas Investment Office for amounts more than \$10 million were almost guaranteed (Marshall & Peters, 1999; Devine, 2004). New laws passed in Parliament no longer considered the need to protect an employee or consumer, rather the focus shifted to competitive efficiency within the deregulated

marketplace. Taxation too moved from direct to indirect with the reduction in personal and corporate tax rates and the introduction of goods and services tax (GST) in 1986. GST is a universal tax covering all items of domestic consumption excluding financial services, real estate transactions and very small businesses. Social security schemes such as the New Zealand pioneered no fault accident compensation system was redesigned to make employees rather than employers fund the program (Devine, 2004; Kelsey, 1997)

A number of state owned enterprises and other state owned assets were privatised either by sale (example banks, the State Insurance Company) or partly privatised by placing them under a corporate board with minimal social delivery and profit maximisation as primary objective. For instance, Crown Research Institutes (CRI's) were modelled as per the private sector, they had to compete for funding with private research institutes and were forced to charge their customers in order to recover costs. Public hospitals likewise were asked to compete with private health service providers for funding (Kelsey, 1997). School education was considered through the eyes of a free market as administration of schools was transferred to local boards that were empowered to decide on what was paid for using government grants. The board could decide on appointment of teachers on a need basis with wage negotiations playing a critical role in appointment rather than quality of teaching staff. Schools also decided to charge their students a voluntary fee in order to increase their grants (Kelsey, 1997). Tertiary institutions too were re-structured to deliver education to only those students who could afford to pay their fees. Students who borrowed money to study had to raise their loans on commercial interest rates while institutions raised their fee and the government reduced any allowances (Devine, 2004; Kelsey, 1997).

State bureaucracy was streamlined as proponents believed that this could increase productivity of employed staff. Government ministries were assigned to a Chief Executive Officer (Devine, 2004) who was appointed on a fixed term contract linked to performance. The end goal of a ministry changed from service of the population to service delivery with a profit motive. This swift structural adjustment also resulted in significant job losses and, at such a difficult time for families, the government decided to reduce the amount and extent of entitlements for welfare payments (Devine, 2004). The structural arrangement considered that somehow and in some way individuals who had to depend on help from others would take care of themselves. Based on this new doctrine, institutions for mentally ill, elderly and those with disability were closed

down, and the government encouraged and urged women and Churches to take up their traditional duties in order to fill the vacuum created by such closures (Marshall & Peters, 1999). The rationale provided was efficiency of public service would save costs which would fuel economic development, leading to individuals enjoying the fruits of their hard work (Devine, 2004; Kelsey, 1997).

Effects of this new regime were seen on the fourth pillar of a democracy – the media as well. As Alistair Morrison noted

“In reporting the flow of radical and unheralded reforms of the last decade the news media messengers inevitably became entwined in the message. Editorially, the country’s major newspapers generally cemented any notion of collusion by supporting the reforms without giving much regard to the damage that was being done to the political system by the way they were being introduced...The politicians preached there is no alternative and the news media wrote its acronym, Tina in to the language.” (Kelsey, 1996. p.12)

Neo-liberalism turned news reporting in to a convenient relationship between government, bureaucrats and the media. Journalists who had access to political elites and those who would write stories as prescribed by the elite were given consistent access. The relationship became mutually beneficial at the cost of genuine investigative journalism (Kelsey, 1997)

Implementation of this “radical adventure” (Kelsey 1997, p.5) received strong support from the international community and its institutions such as the World Bank and Organisation for Economic Cooperation and Development (OECD). The OECD in its 1993 analysis of New Zealand said, since 1950 New Zealand’s economy had been highly protected in comparison to all other OECD nation states (Kelsey, 1997). This has resulted in a largely unskilled labour force, rigid labour, capital and product markets and high taxation rates. The end result was a deeply uncompetitive economy. The reforms of 1984 by the Labour Party Government have created one of the least distorted tax systems in OECD. It has resulted in lowest OECD subsidy in key area of agriculture, significant liberalisation in trade and an efficient bureaucracy. Trans-national media too wrote extensively about the success of “the New Zealand Experiment” (Kelsey, 1997). For instance Kelsey chronicles a number of write-ups by the international media from 1985 to 1993. These were *The Economist*, *The Times*, *Financial Times* and the *Wall Street Journal*. The *Economist* magazine published praises for New Zealand’s new doctrine. Writing that it was a pleasant surprise for businessmen that a social democrat ideologue, the New Zealand Labour Party, was behind these reforms. Towards the New Zealand’s radical experiment, the *Economist* asked: ‘Can this free-market experiment in socialist sheep’s clothing succeed? And offered a response ‘During his 36 years as

newspaperman your correspondent has visited most major countries, but he can remember no economic experiment that he has been more eager to have succeed than that of this brave New Zealand and Labour government' (*The Economist*, 1985, p.19 cited in Kelsey, 1997, p.7). In later reports *The Economist* published further praises of New Zealand's experiment describing it as New Zealand's free market socialists (*The Economist*, 1988, p.74 cited in Kelsey, 1997p.8), the sort of socialism that millionaires approve (*The Economist*, 1988 p.45 cited in Kelsey, 1997, p. 8), New Zealand's brave recipe (*The Economist*, 1990 p.19 cited in Kelsey,1997, p. 8), Out-Thatchering Mrs Thatcher (*The Economist*, 1991 p.72 cited in Kelsey, 1997 p.8), an international model for economic reform (*The Economist*, 1993 p.155 cited in Kelsey, 1997, p.8), a paradise for free marketers – if not for those New Zealanders who lost their jobs (*The Economist*, 1993 cited in Kelsey, 1997, p.8). Other international newspapers such as Britain's *The Times and Financial Times*, the *Wall Street Journal* too echoed similar themes.

In reality, however, this structural adjustment of New Zealand did not succeed as the country experienced extended stagnation and recession for a significant amount of time. Kelsey (1997) says that between the years of 1985 – 1992 the OECD economies experienced average growth rates of 20 per cent, in comparison the New Zealand economy shrank by over one per cent during the same period. Inflation for the period averaged around 9 per cent a year along with unjustifiably high interest rates. The country recorded unprecedented loss of jobs and migration, its international debt increased four times, resulting in two downgrades by credit rating agencies in seven years. The net effect was investment within the economy was reduced to half of GDP while investments in research and development were lowest in the OECD, falling to half of OECD average. In essence, the great structural adjustment left large numbers of the New Zealand population worse off. Media coverage of the negative impact of the new doctrine was limited. Some in the media, however, did make the effort to research and publish the social costs on New Zealanders caused by the new doctrine. For instance Britain's *Independent* magazine published an in-depth analysis of the social costs on New Zealanders, titled '*What happens when you scrap the welfare state?*' The analysis began with the comment 'New Zealand has, and its economy is stronger. But there is dark side: one in seven below [the] poverty line; record number of people in jail; armed police on the streets; queues at charity food banks'. The analysis ended with 'there is a feeling that something irreplaceable has already been lost. For 40 years New Zealand tried to build a civil society in which all its people were free from fear and

want. The project's gas has now lapsed. In its place is only a vague extortion for individuals to go and get rich' (*Independent on Sunday*, 1994 cited in Kelsey, 1997).

3.5 Conclusion

New Zealand's neo-liberal experiment started in 1984 by a social democrat Labour Party continues to be used even today towards accomplishing the earlier 'unfinished business' (Boraman, 2006) of completely eliminating any social regulation. Regardless of whatever the consequences of the great structural adjustment had been, everyone from industrial powers, capital markets, libertarian intellectuals, free market economists, financial journalists of trans-national media and credit rating agencies applauded and continue to applaud and reinforce neo-liberalism. Twenty four years later in 2007 the New Zealand Labour Party began discussions on another radical scheme that involved the use of markets to protect the environment and address the issue of climate change. This scheme was based on neo-liberal principles imparted under the great structural readjustment of 1984, that governments should play a minimal role in the economy otherwise it is interfering with the right of an individual of profit maximisation; that governments should create markets in areas that a market has never existed, that market is the best place to ensure best outcomes for all transactions. Kelsey (2011) argues that neo-liberalism is so systematically embedded in New Zealand by layering of disciplines that are ideological, regulatory, and structural and socio cultural. Neo-liberal policy and regulatory mechanisms take different forms around the world but each mechanism is based on a hegemonic regime of governance that can be described as 'regulatory capitalism, new constitutionalism and meta-regulation' (Kelsey, 2011, p. 1). This new scheme uses the above principles to address the issue of climate change. In the next chapter I discuss the radical emissions trading scheme.

Chapter Four: Emissions Trading Scheme

4.1 Introduction

In order to understand the New Zealand emissions trading scheme, it is important to introduce international negotiations and agreements that influence New Zealand's climate policy. First, this chapter examines the Brundtland Report in order to provide a context for understanding global climate policy. Discussion on the Brundtland report is followed by analysis of the Kyoto Protocol. The Kyoto Protocol is an unprecedented agreement on climate change as it puts down binding targets for industrialised countries. Then, the New Zealand emission trading scheme is reviewed along with analysis on how neo-liberalism forms the underlying framework of an emission trading scheme. The chapter provides an important foundation for understanding how neo-liberalism has shaped international and New Zealand environmental reforms.

4.2 The Brundtland Report – 1987

In December 1983, the United Nation General Assembly assigned the World Commission on Environment and Development to formulate a global agenda for climate change. The mandate of the agenda was: (i) formulate long term ecological strategies in order to achieve sustainable development by the year 2000 and beyond (ii) suggest how concerns on environment can be translated to form the basis of greater cooperation between developed and developing countries to ensure that mutual objectives are attained (iii) to devise methods in order to effectively address international environmental concerns (Brundtland, 1987). The fact that the United Nation General Assembly agreed upon formulating such an agenda highlights the extent of damage to the environment and concern of the United Nations. Such concern towards the environment and its effects on humans are based on scientific research. Scientists advise us of some very complex issues that the world and its inhabitants face such as rising temperatures, ozone layer depletion and deserts encroaching agricultural and forest land due to our changing climate. Science urges us to understand that environment is not isolated to a city or nation state. Therefore, the approach to deal with issues pertaining to the environment and to protect it should be multilateral.

The Brundtland Commission urged the need to redefine development. Development at present is unequal as it leads to development of a few, leaving a large number of people in poverty. It places extraordinary pressure on limited natural resources of land, water, forests and other natural resources. Most critically it is destroying our environment

because when nations develop each wants to use the cheapest energy source towards its development. The cheapest energy sources are fossil fuels such as coal and petroleum products. Each time fossil fuels are used these emit greenhouse gases. The amount of greenhouse gases emitted is beyond the capacity of our natural ecosystems which causes greenhouse gases to remain trapped in the atmosphere. Trapped greenhouse gases lead to global warming, a phenomenon powerful enough to exacerbate world poverty, shift agriculture production areas, raise sea levels to flood coastal cities, and disrupt national economies (Brundtland, 1987). The commission said that solution to global warming does not lie in ending economic development rather it argued that economic development is the solution towards addressing crucial world issues of climate change, world poverty and food shortage. However, there is an inevitable need for change in the manner in which development policies by respective governments were formulated (Brundtland, 1987).

Development should shift to policies that sustain and expand the environmental resource base. The challenge for governments is to decouple economic development and the environment at a time when ecology and economy are strongly interconnected. Interconnection of ecology and economy can be seen at local, regional, national and transnational level. The need is to consider development as sustained human progress for the entire planet over decades and centuries to come. The Commission said “What is needed now is a new era of economic growth, growth that is forceful and at the same time socially and environmentally sustainable” (The Brundtland Commission report, 1987, p.14). The commission in its report highlights that apart from economics, development must also consider its social and environmental impact. In the report the commission advocates “sustainable development” (p. 20) in order to address the conflicting aspects of environmental degradation, world poverty, intergenerational justice and economic growth (Brundtland Commission report, 1987).

According to the commission, sustainable development means meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. Sustainable development means developing innovative technological solutions and social organisations in order to ensure long term economic growth. It increases humanities chances of providing enough food and better life to those living in poverty. Secondly, sustainable development means adapting to a less energy and resource use based lifestyles. It does not mean a fixed state of affairs, rather it is a process of adaptation where changes are implemented to meet present as well as future

needs (Brundtland, 1987). The commission recommended that nation states work collectively on delinking the environment from economic development or else the world will face devastating consequences. For instance when forests are cleared to make way for development or for timber this accelerates soil erosion and siltation of rivers and lakes. Polluted water in rivers, lakes and seas moves from one country to the other without obeying international boundary agreements. Individual countries may devise action plans to create a balance and to secure short term economic and political gains but global issues require a collective global response rather than fragmentation of nations, institutions and policies. The need is for nation states to collectively integrate economics and ecology in their climate policy. Sustainable development refers to the structure towards this collective integration. In this structure, developed countries must play a larger role in mitigating climate change. The strategy is designed for nations and societies to meet needs of their citizens both by increasing their productive potential and by ensuring equitable opportunities for all. Objectives of this strategy are not limited to the current generation but for future generations. The goal of the policy is to reduce resource exploitation (Brundtland, 1987). However sustainable development also recognises that the dynamics under which each nation state operates are unique thereby, it only provides a broad framework for each nation state to develop their own policies and programs towards achieving collective environmental and economic objectives (Brundtland, 1987).

Essentially, sustainable development is the practice of adaptation in which the misuse of resources, the course of investments, the direction of scientific development and institutional change are all in agreement and work towards improving both current and future potential to meet human needs and aspirations. It is an implicit understanding that common interests can only be articulated through international cooperation (Brundtland, 1987, p.7).

4.3 From Brundtland Report to the Kyoto Protocol.

The Brundtland report recognised the negative impact of economic development on the environment and the need to take mitigative action by the collective body of United Nations (159 member states). Five years after the publication of the Brundtland report in 1992 at the Rio Earth Summit, 192 countries joined the United Nation Framework Convention on Climate Change (UNFCCC) with the goal of hindering dangerous human interference with the ecosystem. Based on the UNFCCC in 1997 the Kyoto Protocol was adopted in Kyoto, Japan. The protocol sets binding targets for 37

industrialised countries and the European Union to reduce their greenhouse gas emissions. Collectively all these countries are required to reduce their greenhouse gas emissions to an average five per cent below the 1990 levels over commitment period 1 (CP1) 2008 – 2012 (UNFCCC, 2011). In the following section, I discuss the Kyoto Protocol as it forms the basis of the emission trading mechanism.

4.3.1 The Kyoto Protocol

The Kyoto Protocol sets binding targets for Annex I countries (Industrialised/OECD nations) that have to cut their greenhouse gas emissions. Greenhouse gases targeted under the Kyoto Protocol are carbon dioxide, methane, hydro fluorocarbons, per fluorocarbons and sulphur hexafluoride (UNFCCC, 2011). Countries that have ratified the protocol pledged to reduce their greenhouse gas emissions in order to promote sustainable development.

Towards promoting sustainable development, the protocol makes a number of recommendations. Article 2 (1) (a) of the protocol urges countries to implement or further develop policies as per their national circumstances towards (i) enhancement of energy efficiency, (ii) promotion of sustainable forest management practices, afforestation and reforestation, (iii) promotion of sustainable forms of agriculture, research and development of renewable forms of energy, progressive reduction in greenhouse gases by using market instruments. Section 2 (1) (b) urges cooperation with other nation states in order to enhance the effectiveness of policies listed in section 2 (1) (a) based on experience and exchange of information. Section (2) (3) urges parties to implement policy measures that minimise negative effects of climate change on international trade, and social, environmental and economic impacts on other parties, particularly developing countries. Article 3 (2) asks member countries to make demonstrable progress in achieving their targets. Article 3 (4) of the protocol outlines the need to review the process of calculating and reducing greenhouse gas emissions however, the outcome of the review will only serve as a guideline for member states to consider and implement. Member states can take into account various dynamics of their economy such as economic, population and industrial growth before implementing any changes. Article 3 (6) of the protocol reads “in implementation of their commitments under this protocol other than those under this article (parties acting jointly in the framework), a certain degree of flexibility shall be allowed by the Conference of Parties serving as the meeting of Parties to this Protocol to the Parties included in Annex I

undergoing the process of transition to a market economy” (United Nations, 1998 p. 1 - 5; UNFCCC, 2011).

The flexibility option under the Kyoto Protocol is provided by market based mechanism of emission trading. The UNFCCC considers emission trading as a critical mechanism to achieve the objectives listed in the Kyoto Protocol. The UNFCCC believes that by assigning a price to greenhouse gas emissions desired reduction in greenhouse gas emissions can be achieved. This scheme will also encourage energy efficiency, afforestation, reforestation, sustainable agricultural growth, research and development of renewable energy systems. Thus the scheme can ensure a balance between trade, commerce and the environment (UNFCCC, 2011).

4.4 Emissions Trading – What it is and how it works

Emission trading scheme is a market based mechanism to mitigate climate change proposed under the Kyoto Protocol. The mechanism considers greenhouse gases as quantifiable commodities and allocates property rights to the environment in order to harmonise collective and individual interests so that these can be protected against an individual’s self-interest (Climate Change, 2010; Buhrs, 2010; Gillbertson & Reyes 2007). The Kyoto Protocol prescribes that each member state is allocated a set number of assigned amount units (AAUs) based on the nation states, GHG reduction targets. In case a member state is unable to attain its targets it can purchase additional AAUs from those member states who are under their greenhouse gas emission targets and would like to sell their surplus units. Junker (2005) defines emission trading as

The creation of surplus emission reduction at certain stacks, cents or similar emissions sources and the use of this surplus to meet or redefine pollution requirements applicable to other emissions sources. This allows one source to increase emissions when another source reduces them, maintaining an overall constant emission level. Facilities that reduce emissions substantially may ‘bank their credits’ or sell them to other facilities or industries (Junker, 2005, p. 2).

In their analysis of emission trading scheme Gillbertson & Reyes (2007) term emission trading as a “cap and trade” (p.10) mechanism designed with a simple goal for nation states to meet emission reduction targets. Cap places obligatory caps on greenhouse gas emissions, while trade provides flexibility on how to achieve GHG emission reduction (by paying for or by reducing excessive greenhouse gas emissions). This market transaction based system is designed to reward innovation, efficiency and early action towards reducing emissions. In order to achieve the aim of reducing greenhouse gas emissions, each country is given x number of AAUs. The amount of AAUs allocated is

based on the historical levels of greenhouse gas emissions that each member state has produced. Respective governments then allocate AAUs to industries, businesses and individuals on the basis of historical emissions by each. Large industry or businesses would have emitted higher amounts of greenhouse gas emissions, and as such are likely to receive higher number of AAUs. The technical term prescribed by the Kyoto Protocol for allocation of AAUs on the basis of historical emissions is *grand fathering*. In order to ensure that member states and industries/businesses within each nation state act to reduce emissions with each financial year the amount of allocated AAUS to each member state are reduced. The cap measure is a form of regulatory enforcement in order to mitigate climate change based on the economic principle of demand and supply. Scarcity of permits will force collective reduction in emission of greenhouse gases and may act as an incentive for development of low emission technologies (Gillbertson & Reyes, 2009).

4.4.1 Example of how Emissions Trading Operates:

Firm A is an oil company; it needs to buy emission units to cover greenhouse gas emissions it is responsible for. Firm B is a large forestry company that receives emission units from the government for land it is planting in forests. It is also cutting down some trees, leading to emissions for which it has to surrender emission units. Initially, Firm B has a shortfall of units but, as the new forest matures over time, it will have spare units it can sell. Firm C is a major industrial user of electricity for which it has to surrender emission units. To help Firm C adapt to these higher costs, the government gives Firm C a free allocation of emission units, which Firm C can sell to offset its increased electricity costs. Under the emissions trading scheme, Firm A and Firm B both buy Firm C's units in the short term to cover their emissions. Because it now has to pay higher energy prices, Firm C finds it is cheaper to invest in energy efficiency. Over time, as its forest matures, Firm B has spare units available and could sell them to Firm A.

4.5 Clean Development Mechanism and Joint Implementation

In addition to the emission trading scheme there are two supplemental options available under Kyoto Protocol. Article 6 (1) of the Kyoto protocol provides two supplemental options under emission trading scheme (i) clean development mechanism (CDM) and (ii) joint implementation (JI). Article 12 (2) of the protocol defines the purpose of CDM as assisting nation states that are not a part of Annex I countries in achieving sustainable

development and contribute to the larger objective of the UNFCCC to assist nation states under Annex I in achieving their greenhouse gas reduction targets. CDM allows Annex I countries to buy certified emission reduction (CER) units from emission reduction projects in non-Annex I countries certified by the UNFCCC. As Article 6 (1) of the Kyoto Protocol reads

For the purpose of meeting its commitments under Article 3, any Party included in Annex I may transfer to, or acquire from emission reduction units resulting from projects aimed at reducing anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases in any sector of the economy, provided that: (a) any such project has the approval of the parties involved; (b) any such project provides a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to any that would otherwise occur (United Nations, 1998, p.7).

Each project can earn Annex I countries saleable certified emission reduction (CER) credits which is equivalent to one tonne of GHG. UNFCCC considers CDM as a win-win proposition for all stakeholders including the environment. Annex I countries can achieve their greenhouse gas reduction targets by not making any significant immediate change to their economies while non-Annex 1 countries who emit minimal amount of greenhouse gases receive financial incentives for supporting Annex I countries. The financial incentives can be utilised towards sustainable development and to invest in clean energy projects. An example of a CDM project is a rural electrification project using solar panels or installation of more energy-efficient boilers. The UNFCCC considers that CDM will stimulate sustainable development and emission reduction while providing flexibility to industrialized countries in meeting their emission reduction targets (Environmental Protection Agency, 2010; Ministry for the Environment, 2010; Bertram & Terry 2010; Gilbertson & Reyes, 2009).

The second supplemental option is Joint Implementation (JI). JI is defined under Article 6 of the Kyoto Protocol; it permits Annex B country with an emission mitigation commitment to receive CER units from emission mitigation or removal project in another Annex B Party. Each CER is equal to one tonne of greenhouse gas emissions. The purpose of JI is to offer participating parties an adaptable and cost-effective method towards achieving fraction of their Kyoto commitments, along with the benefits of foreign investment and technology transfer for the host country (Environmental Protection Agency, 2010; Ministry for the Environment, 2010; Bertram & Terry 2010)

Having examined the background to, and how the emission trading scheme works, the final section of this chapter will examine how the neo-liberal framework forms the basis of the emission trading mechanism.

4.6 Emission Trading Scheme and Neo liberalism

Under neo-liberal economic theory, individuals are free to pursue their best interests in the market. Neo-liberal theory argues that the market will ensure the best outcome for individuals that transact in the market. Apart from guaranteeing best results to each individual transacting in the market, the market has no consideration towards any direct or indirect effect of any transaction on anyone outside the market. The market considers such issues as beyond its scope and labels these as externalities, because they are an impediment to profit/wealth maximisation (Humphreys, 2009). Therefore, an individual is under no obligation to pay any costs towards an externality. Toke (2000) explained that in case the externality is considered as a commodity and individuals are allotted with property rights which authorize them to buy and sell the commodity and generate profit in such a scenario the self-interested individual may willingly transact the commodity in anticipation to profit from this trade.

Greenhouse gases emitted by enterprises in the environment are one such externality. The emission trading scheme seeks to address this externality by treating the environment as a commodity and creating a market to trade this new commodity. It creates a market in an area that traditionally never had a market. To provide this new market with a framework the government allocates assigned units (AAUs) free of charge to private enterprises. By allocating AAUs the government assigns property rights to the environment, a public good, to private enterprises. Coase (1960) argues that allocating property rights to public goods leads to socially efficient delivery of resources for all stakeholders. Climate change mitigation efforts along with natural resources and nature will be most efficiently, rationally and cost effectively managed when placed under private ownership (Humphreys, 2009; Toke, 2000). Humphrey (2009) however, argues that emission trading scheme provides entrepreneurs and enterprises opportunities towards capital or resource accumulation when AAUs provided free of charge can be traded for profits or banked for speculative gains.

Secondly, neo-liberalism seeks deregulation and voluntarism as they argue that regulation causes market distortions which leads to market inefficiency. In case any regulation is mandatory due to political or social pressures neo-liberals prefer softer

forms of regulation (Hepburn, 2007). By providing options such as cap and trade to large businesses and voluntary participation to small and medium enterprises to use the markets towards achieving its greenhouse gas mitigation targets the government has opted for deregulation (Paterson, 2005). An example of soft regulation exists within the Kyoto Protocol, the parent legislation of emission trading scheme. The Kyoto Protocol binds Annex 1 member states to reduce their greenhouse gas emission below 1990 levels by the end of commitment period 1. The protocol urges member states to take necessary steps in order to achieve these targets. However, in case member states are unable to achieve greenhouse gas emission reduction targets, member states can continue business as usual by using the flexibility options of clean development mechanism and joint implementation. Plainly, as long as a member state can pay towards their emission no international commission or protocol has any issues in them polluting a public good.

4.6.1 The New Zealand emission trading scheme policy document

New Zealand government in its climate policy document outlines the science behind climate change. It also outlines the effects of climate change such as changes in temperature, excessive rainfall, increase in the number of storms causing excessive flooding and coastal erosion. The government acknowledges that human emitted greenhouse gases have had and continue to have a strong negative influence on the environment and that our current efforts to mitigate climate change may not be enough. The challenges that climate change creates for New Zealand are: (i) manage greenhouse gas emissions to levels that are comparable to contemporary growth trends; (ii) as part of international initiatives such as the Kyoto Protocol in order to ensure that multiple strategies are implemented to mitigate climate change; (iii) adapt to the changes in the environment by responding to risks and by taking advantage of the opportunities they present; (iv) most importantly achieve the above three objectives at the lowest cost. In case New Zealand does not act against climate change it will inevitably face adverse consequences as a country, on its economy, infrastructure and lifestyle (Ministry for the Environment, 2007, p. 4 - 9)

The government considers emission trading scheme as a tool that empowers the market to reduce emissions by searching for innovative solutions and investing in cleaner and greener technologies. Emission trading scheme provides financial incentives (*the neoliberal notion of adding value*) to business and industry that invest in cleaner technologies and innovate low greenhouse gas emission products and services. The very

purpose of adopting an emission trading scheme is to ensure that any extra costs that may apply to business due to its greenhouse gas emissions are kept at its minimum. In implementing an emission trading scheme the government has opted to move away from the traditional government regulatory approach of imposing taxes in order to achieve behavioural changes instead it has provided a broad framework that empowers business and industry to make individual choices on how to address collective issue of climate change (*rational choice under neo-liberalism*). Further, even though the scheme is based on voluntary participation regardless of whether one participates in the scheme it allows anyone to trade AAUs and profit from it (*Profit/Wealth/Utility maximisation for the individual and business under neoliberal theory*). Individuals can also choose to bank their units (*individual property rights*). By legislating an emission trading scheme and creating a framework that links the scheme to other emission trading schemes worldwide, the government has created a market for business and industry to operate in. This market is operational at a local, national and a transnational level, and according to neo-liberals the role of governments is to create markets where none exist and to facilitate international trade and commerce.

4.6.2 From a Neo-liberal to a Conservative ETS (making money for New Zealand elite)

The New Zealand National Party amended the initial New Zealand emission trading legislation in 2009. Based on the 2009 amendments free allocation of AAUs will no longer be on the basis of the grandfathering principle, instead allocation is to be based on output (output of goods and services in the previous year) (Ministry for the Environment, 2009). Hood (2010) argues that changes in allocation of AAUs come with a risk of locking in uneconomic high emission activities which may result in inefficient allocation of capital between different quarters of the economy. Hood explains that based on this amendment there is high probability that enterprises will claim more permits. This is because unlike grandfathering where allocation of AAUs was capped at 90 per cent of 2005, emissions amendments have linked allocation of AAUs to previous year's production of goods and services. Most business or industries increase their output each year. A business would have received fewer units under the grandfathering principle due to lower production in 2005 (the year used towards calculating grandfathered allocation of AAUs) as compared to production in 2010 (Hood, 2010). The amendments made to the 2008 emission trading scheme also extend the time period for free allocation of AAUs under the rationale that business and industry need more time to adjust to the additional costs imposed by climate change. Amendments by the

National Party government to the emission trading scheme have further weakened New Zealand's climate policy (Hood, 2010). The allocation of free AAUs to business and industry will encourage enterprises not to take any action towards reducing their emissions or developing new low emission technologies. The amendments are symptomatic of the National Party's historically close relationship with business and industry as these amendments clearly provide business and industry with an opportunity to profit from free allocation by overcompensating firms while leading to no real change in greenhouse gas emissions. Kerr (2009) argues that the cost of such overcompensation to enterprises is borne solely by the tax payers who are being made to pay for capital accumulation of certain business sectors in the economy. The cost of free allocation to the tax payer is estimated at around \$100 billion by 2050 (estimated at a modest emission unit price of \$50 for each tonne of carbon dioxide equivalent) by the New Zealand Treasury. Rather than using this amount to aid capital accumulation for business, the same amount can be provided as transitional assistance to poor households and small businesses (Kerr, 2009, p. 37).

The scheme was also amended in order to synchronise it with the proposed Australian carbon pollution reduction scheme (CPRS). Instead of using New Zealand baseline levels, the 2009 amendments have resulted in New Zealand emission trading scheme using Australian baseline levels, although Australia has not implemented any carbon policy itself (Hood, 2010). Baselines are levels under which an emitter does not need to surrender any AAUs to the government. In synchronising New Zealand emission trading baseline with Australian baseline levels, the government has allowed emitters to increase their total emissions without being required to buy more allowances as long as the emissions are a result of increased activity rather than a change in the emissions intensity of the production (Ministry for the Environment, 2009). Hood (2010) and Kerr (2009) argue that this amendment once again negates the minimal effect that the 2008 Labour Party proposed emission trading scheme would have had on achieving a small reduction in New Zealand's greenhouse gas emissions. Hood (2010) cites the example of Holcim Cement, which had publicly announced that due to the 2008 emission trading scheme its costs would increase significantly. Based on this substantial increase in its costs Holcim Cement decided not to invest further in New Zealand. However, after the 2009 amendments proposed by the National Party government (changes to allocation and synchronisation of baseline with Australia) Holcim Cement changed its decision. Holcim Cement decided to open a second plant in New Zealand. Hood (2010) found that amendments made by the National Party government in 2009 decreased costs for

the company. Based on decreased costs (paid for by the tax payer) Holcim Cement decided to open a second manufacturing plant in New Zealand.

4.7 Chapter Summary

International recognition of the negative impact that business as usual has had on the environment and along with it on population came with the publication of the Brundtland Commission report in 1987. The report chaired by Gro Harlem Brundtland, former Prime Minister of Norway was published by the United Nations. The report acknowledged the need to implement futuristic environmental strategies, it called for greater collaboration amongst all nation states in order to address challenges to our environment and along with it challenges of economic and social development. It recognised that limiting economic growth is not the solution to address climate change, as by limiting economic growth mankind will fail to address the other critical challenges of poverty alleviation and hunger. Based on its analysis the Brundtland Commission urged that it is in the common interest of all nation states to pursue policies of sustainable development. Sustainable development refers to meeting the needs of present generations without compromising the ability of future generations to meet their own needs. Based on the Brundtland commission report the United Nations Framework Convention on Climate Change an international environmental treaty was produced during the Earth Summit in Rio de Janeiro in 1992. The UNFCCC was signed with the aim to limit and lower greenhouse gas emissions. However, it did not achieve any commitments from its member countries nor did it have any enforcement powers towards asking for mandatory cuts in greenhouse gas emissions by its member countries. After five years of negotiations the Kyoto Protocol was adopted in 1997 as a part of the UNFCCC. The protocol's aim was to fight global warming. Unlike the UNFCCC the protocol bound 37 industrialised countries to reduce their greenhouse gas emissions by five per cent below their 1990 emissions. Toward assisting nation states in achieving this reduction, the protocol formulated flexibility mechanisms of emission trading scheme, clean development mechanism and joint implementation.

Emission trading scheme works under the principle of cap and trade. Each year the government caps the amount of emissions within the economy and provides AAUs to industries and businesses. In case industry and business are able to reduce their greenhouse gas emissions they can trade their permits for dollar value and must purchase additional permits in case their emissions exceed the allotted amount. Each year the cap on emissions reduces which in theory should force emitters to reduce or

pay for their emission. Other flexibility options available under the Kyoto Protocol are clean development mechanism (CDM) and joint implementation (JI). CDM and JI allow Annex I countries to achieve their emission reduction targets by purchasing emission reduction credits from approved projects that reduce global emissions. These projects can be in non-Annex I countries or credits can be bought from other Annex I countries that are left with excess allowances.

Based on a National Interest Analysis that predicted New Zealand would gain from being a part of the Kyoto Protocol it ratified the protocol in 2002 and accepted international obligation to reduce its greenhouse gas emissions to 1990 levels by end of commitment period 1. New Zealand's climate policy has been in debate for many years as most of its greenhouse gas emissions are from sectors that contribute significantly to its economy. Implementing a climate policy that taxes greenhouse gas emitters has politically been impossible till date. Ratification of the Kyoto Protocol made it inevitable for the New Zealand government to implement a climate policy. Based on the recommendations of Kyoto Protocol the government decided to implement an emission trading scheme in 2008. The scheme was drafted by the Labour Party government. The scheme provided phased entry for most emitters in to the scheme. The government in implementing the scheme envisaged that using a market based mechanism that operates on demand and supply of emission permits will ensure a fair balance between greenhouse gas reductions. It will provide flexibility to business and industry in order to prepare for extra costs of climate change. The Labour Party scheme would have resulted in some GHG reduction but the National Party amended the Labour Party ETS and the governments environmental objectives. Broad amendments to the scheme included increasing the timeline for inclusion of emitters, increasing the amount of free AAUs allotted to emitters, scrapping the Labour Party's target of attaining carbon neutrality and aligning the scheme with New Zealand's closest trading partner Australia. The amended ETS supports business and industry however, does little towards the environment. It does not serve the very purpose that it was put in place for.

The reason for a scheme that should pursue reduction in greenhouse gas emissions was heavily diluted to support business and industry. The Brundtland report, the UNFCCC treaty, the Kyoto protocol and Emission Financing scheme all use features of neo-liberalism with emphasis placed on sustainable development, economic growth, flexibility mechanisms and use of market principles of demand and supply to achieve their aim of reducing greenhouse gas emissions. However, in reality the mechanism

does little to achieve this aim because of the strong influence of business and industry on how legislation is framed. The ETS appears to be designed to get tax payers to pay for greenhouse gas emissions of business and industry. The National Party amendments to the 2007 legislation appear more an attempt at making money for the elite than towards any serious reduction in this country's greenhouse gas emissions.

Neo-liberal ideology therefore seems to have significantly influenced the evolution of emissions trading scheme. Political ideology thus provides an important foundation for understanding the uniqueness and complexity of issues that are at the core of international and New Zealand climate policy.

The next chapter provides a comparative analysis of the European Union and New Zealand emission trading schemes. The European Union Emissions Trading Scheme was implemented in 2005. Its pilot phase lasted for three years 2005 – 2007 with commitment period 1 starting in 2008. It covers 30 member states. Thus, it is the largest and oldest running emission trading mechanism. The comparative study is being undertaken in order to understand gaps in New Zealand's climate policy and to propose measures to address those gaps.

Chapter Five: Comparative Analysis - European Union and New Zealand Emissions Trading Schemes

5.1 Introduction

The European Union ratified the Kyoto Protocol in 2002 and implemented an emission trading scheme in 2005. The European ETS is the oldest GHG emission trading policy, it covers 30 European nation states and thereby serves as a model for other countries to develop and implement a similar policy. This chapter compares the New Zealand and European Union emission trading schemes in order to identify any gaps in New Zealand's climate policy. After comparing the two emission trading schemes and identifying gaps in the European Union ETS the last section of this chapter focuses on alternatives to emission trading scheme.

5.2 Comparative Analysis

5.2.1 Start Date

First discussions on a Europe-wide emission trading scheme were held in 1998 after the declaration of the Kyoto Protocol. European political leaders began extensive consultations on the policy in 2000. The scheme was implemented in 2005, the same year when Kyoto Protocol was ratified (European Commission, 2011c). In contrast New Zealand ratified the Kyoto Protocol in 2002 and based on the recommendations of the Kyoto Protocol began consultations on New Zealand's climate policy. The proposal to implement an emissions trading scheme was made in 2007 (Bertram & Terry, 2010). After significant discussions amongst a number of stakeholders an emission trading scheme was implemented as New Zealand's climate policy on 1 July, 2010.

5.2.2 Aim

Emissions trading scheme is considered by the European Commission as its corner stone policy in mitigating climate change and achieving its Kyoto Protocol targets because the Commission considers the ETS as environmentally beneficial and cost effective. The Commission intends to achieve its commitments of an eight per cent reduction in greenhouse gases compared to 1990 levels by end of commitment period one in 2012 using the mechanism (European Commission, 2011c).

Implementing a climate policy is considered by the New Zealand government as favourable in protecting the country's image as a clean green brand. Emission trading scheme was implemented as it is considered the least cost option to achieve greenhouse

gas reduction and to support business and industry towards adaptation to extra costs of climate change along with investment in clean technology and power generation (Ministry for the Environment, 2011b).

5.2.3 Science

Why does Europe, New Zealand and rest of the world need a climate policy? The answer to this pertinent question is provided by the science behind climate change.

Climate is a statistical account of weather conditions and any kind of variation to it and climate change refers to significant changes in weather conditions that continue for over a decade or longer (IPCC, 2007, p. 871). Climate change does not refer to the changing weather of each day or each season. Thermodynamics require that for a planet at a constant temperature, the amount of energy absorbed as sunlight and the amount emitted back to space must equate. Earth absorbs 239 watts per square metre of heat each day. By using the law of thermodynamics scientists determined that Earth's temperature based on the amount of absorbed heat should be -18°C (Science Daily, 2010). However, Earth's average temperatures are much higher than -18°C . The difference in temperature is due to excessive greenhouse gases in Earth's atmosphere. Greenhouse gases such as carbon dioxide trap energy released in to the atmosphere instead of allowing the normal process of emitting this energy back to space. This changes the average temperatures and the movement of energy across planet Earth (IPCC, 2007). The process of some energy being trapped in the atmosphere is natural and does little to destabilise life or cause catastrophic changes in weather as ecosystems can cope with it. The problem starts when human activity such as burning coal or cutting down forests leads to higher emissions of greenhouse gases in the atmosphere which is beyond the ecosystems potential to cope. Over-Time, human activity has led to a substantial rise in greenhouse gas emissions. Measurements taken by relevant scientific bodies show that levels of greenhouse gases have risen each year since the 1950s rising from 316 parts per million (ppm) in 1959 to 387 ppm in 2009 (IPCC, 2007). Scientists claim with some certainty that some plant and animal species are extinct and some are on the verge of extinction due to rising greenhouse gas emission levels. Temperatures in the past 100 years have risen by 0.75°C , with evidence to believe that average global temperatures may rise between 1.1°C to 6.4°C over the next 100 years (Michael, David, Robert & Andrea, 2007). Major scientific research agencies have advised that any further increase in greenhouse gas emissions will significantly alter climatic conditions on planet Earth. Changing climate conditions will cause

significant changes in human lifestyles because of extreme weather events such as floods, storms, cyclones, droughts and landslips (IPCC, 2007). It is because of this threat to mankind that a global and credible climate policy needs to be designed and implemented.

The European Union's response to Climate Science

The European Commission appears to have taken evidence provided by climate scientists seriously. The Commission recognises that combating climate change carries significant amount of costs but insists that reducing climate change is its top priority (European Union, 2007). The Commission has taken a number of initiatives to cut Europe's greenhouse gas emissions. Some key initiatives are: (i) it has worked towards improving the energy efficiency of industrial equipment and household appliances; (ii) the Commission has regularly urged business and industry to increase their use of renewable energy sources such as wind, solar, hydro and biomass along with renewable transport fuels such as bio fuels; (iii) The Commission launched the European Climate Change Programme (ECCP) in 2000 and the programme since its inception has been instrumental in adoption of a wide range of new policies and measures; (iv) The most critical measure of the Commission has been implementation of a Europe-wide emissions trading scheme (European Commission, 2010). The European Commission consists of 30 member states; each member state has their own objectives that they want to achieve from a climate policy. Yet the European Commission managed to achieve a comprehensive adaptation strategy acceptable to all stakeholders. This shows resilience on the part of its member states in combating climate change (European Commission, 2011).

New Zealand government's response to Climate Science

The New Zealand government understands the impact of climate change on New Zealand. In the short term the government expects agriculture production to increase in some areas but in the long run these areas may face drought, spreading pests and diseases (Ministry for the Environment, 2009a). In terms of climatic changes affecting residents, New Zealanders may experience warmer winters and warmer temperatures in summer. While most New Zealanders may appreciate warmer winters warmer summer temperatures may cause heat stress and subtropical diseases. Climate conditions may vary between being very dry to floods, droughts and storms. Sea levels are expected to rise which will cause soil erosion and saltwater intrusion. Warming temperatures will force snowlines and glaciers to retreat and change water flows. The New Zealand

government claims that it has complete grasp of the above and other challenges raised due to climate change and that as any responsible government it is committed to addressing these issues. The government further says it will do its “fair share” in combating climate change as it is one of government’s key environmental priorities. Government’s principal policy response towards addressing the above stated issues and doing its “fair share” is the emissions trading scheme (Ministry for the Environment, 2009, p.6).

Even though the New Zealand government understands the harmful effects that climate change has had and will have on New Zealand, its principal policy of emissions trading scheme is unlikely to result in any significant greenhouse gas reductions. The government in 2009 publicly stated, for New Zealand, to meet its Kyoto Protocol greenhouse gas reduction targets for commitment period 1 it will need to purchase AAUs from other countries using the emission offset mechanisms (Bertram & Terry, 2010). Payment for AAUs purchased under the emission offset schemes will be made using taxes paid by ordinary New Zealanders rather than by industrial emitters who are responsible for emissions (Bertram & Terry, 2010).

In comparison to the European Union which has taken a number of steps apart from implementing a cap and trade mechanism, the New Zealand government appeared to challenge the European position by stressing climate change will not affect New Zealanders. Based on this, the government in 2009 made amendments discussed earlier in Section 2 of Chapter 2 of the current research endeavour. The amendments show that New Zealand ETS was amended to levels that will eventually lead to little reduction in its greenhouse gas emissions. Amendments will allow greater flexibility and grant of AAUs as compensation for higher costs. Further, the New Zealand government was not open up to the any sort of criticism, discussion or debate on the amendments made to the ETS. Any disagreement even from public servants was punished, for instance in April, 2009 the New Zealand government decided to sack Dr Jim Salinger, principle scientist at the National Institute of Water and Atmospheric Research (NIWA) who was in disagreement over the effects of climate change and the policy implemented to combat it. Dr Salinger discussed his concerns publicly in the media:

One of New Zealand's top climate scientists has just been fired from his job at the National Institute of Water & Atmospheric research (NIWA). Dr Jim Salinger has been the public face of the organisation for three decades, but says it was his unauthorised talking to the media that's got him sacked (ONE News, April 24, 2009).

The government might have been concerned that this may raise public awareness on the real issues of ETS as opposed to what the government wants the general public to know. This raised another concern as to who to believe since both hold some kind of authority. But ultimately the more influential wins.

5.2.4 Scope of the scheme

At present the European emission trading scheme covers over 11,500 installations from its 30 member states. Installations covered at present under the scheme are power stations, combustion plants, oil refineries, iron and steel works, factories manufacturing cement, glass, lime, bricks, ceramics, pulp, paper and board. The European Commission reviewed the scheme at the end of its pilot phase in December, 2007 (European Union, 2010, p.4-8). Based on this review the commission realised that the scheme is not sustainable in terms of its costs to a number of small enterprises. The commission amended the scheme and will exempt enterprises that emitted less than 25,000 tonnes of greenhouse gases aggregated over the last three years when the third phase of the scheme begins in January, 2013 (European Commission, 2011c, p.15). It also decided that all airlines flying in to or out of any European airport will come under the purview of EU ETS from 2012.

In comparison to the European ETS, New Zealand's ETS takes a sectorised approach to covering greenhouse gas emission. The scheme either currently covers or will cover in future sectors of forestry, transport fuels, electricity production, industrial processes, synthetic gases, agriculture and waste. The scheme began in 2010 with some of the above sectors being covered by the scheme at its inception. Remaining sectors were allocated specific start dates based on risk profile of their business. It is expected that all of the above sectors will come under the review of ETS by 2015 (Ministry for the Environment, 2008). At present most enterprises covered under the New Zealand ETS are large scale. However, voluntary compliance is an option that small to medium enterprises have been urged to take as a measure to reduce and report their emissions (Ministry for the Environment, 2009b).

5.2.5 Greenhouse Gases

Both the European and New Zealand ETS cover six greenhouse gases prescribed under the Kyoto Protocol. These are - carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydro fluorocarbons (HFC), per fluorocarbons (PFC) and sulphur hexafluoride (SF₆). In order to simplify trading and accounting all gases are measured in carbon dioxide

equivalent terms, each allocated permit is thereby valued at one tonne carbon dioxide equivalent (Cabinet Paper, 2002).

5.2.6 International links

The Kyoto Protocol has 192 countries that are Party to the protocol and out of these, 82 have signed the Protocol (UNFCCC, 2011b). Countries that have signed the protocol are probably going to use the recommendations in the Kyoto Protocol and implement an ETS. In such a scenario, the European Union and New Zealand can link their ETS with other international schemes in order to minimise costs to business and industry.

The European ETS currently trades AAUs amongst its 30 member countries. The framework of both the EU and New Zealand ETS is based on the Kyoto Protocol guidelines thereby; both schemes are linkable to emission trading mechanisms of other nation states. International links are important in order to ease volatility pressures and subsequent effect of such pressures on large companies and the pricing of their products or services (Ministry of Foreign affairs and Trade, 2011, p. 39).

5.2.7 Benchmarking

Benchmarking refers to the basis on which government allocates assigned amount units to installations and sectors.

The European ETS benchmarks on per product basis in order to minimise misuse by trade of AAUs for profit by installations. Product benchmarks are valued at the average emissions of top ten installations within the European Union producing the product and AAUs are allocated based on the grandfathering principle (European Commission, 2011b).

New Zealand ETS benchmarks are based on set criteria for each sector. The government has created three broad groups that are eligible for allocation (i) emission intensive and international trade exposed firms; (ii) fishing sector; and (iii) forestry sector. Benchmarking under the New Zealand ETS is made after two tests. The first test tests for trade exposure to determine a business significant weakening of competitiveness due to ETS. Second test is an emission intensity test based on the tonnes of greenhouse gas emissions produced for \$1 million in income. If a business emits at least 800 tonnes of greenhouse gas per \$1 million in income then it is eligible for free units. In comparison to the European ETS which uses the grandfathering principle to allocate AAUs, the New Zealand ETS allocates AAUs on the basis of output of an enterprise during the

previous financial year (Ministry of Foreign Affairs and Trade, 2011, p. 41- 43). The government says it is clear in its intent that that benchmarking is a temporary measure to provide businesses an opportunity to adjust to the extra costs of ETS. However it has not said if it intends to follow the European ETS model of auctioning AAUs in future.

5.2.8 Auctioning of Assigned Amount Units

European emissions trading scheme is currently in its second trading period (2008 – 2012). During the first (2005 – 2007) and second trading period (2008 – 2012) majority of the AAUs allotted to installations were free. However, during the third trading period starting 1 January 2013 the European Commission intends to auction half of the total allowances. The European Commission's strategy is to use revenues generated from the auction towards investment in research and development of renewable technologies that assist the European Union and developing countries in adapting to climate change (European Commission, 2011b).

In comparison to the European Commission, the New Zealand Government has no current plans to auction AAUs. The policy document discusses the need for auctioning of AAUs however, no specific time period as to when the auctioning of permits may begin has yet been discussed (Ministry for the Environment, 2011c). Phone calls to the climate change helpline (0800 254 628) on the 22nd of September 2011 confirmed that the government has not reviewed its plans to auction AAUs.

5.2.9 Carbon Leakage

The IPCC in its fourth assessment report defines carbon leakage as augmentation in the levels of greenhouse gas emissions outside the “countries taking domestic mitigation action divided by reduction in emission of these countries” (IPCC, 2007, p.16.). IPCC and Annex I member countries are concerned that due to increase in the cost of production for some sectors in the economy, enterprises may decide to move their operations to countries with little or no environmental legislation. Climate change and global warming are issues that do not obey any international boundaries in case enterprises decide to move their production to other countries, the purpose of implementing a climate policy stands defeated. In such a scenario, increase in global greenhouse gas emissions is inevitable and will only exacerbate climate change. In order to limit negative impact on the European economy and minimise carbon leakage, the commission decided to allocate extra AAUs sectors that suffer from excessive carbon leakage as a measure of compensation (European Commission, 2011b).

The New Zealand government and its economic advisory, unit the Treasury, acknowledge that due to varied policies, emission targets and greenhouse gas pricing that applies to each sector, the response to climate change mitigation is likely to be uneven (Ministry for Environment, 2006). This unevenness can cause concerns for enterprises resulting in lower production, closure of industry or shifting of manufacturing overseas in countries with little or no regulation. This will place significant pressure on New Zealand's output and exports while no reduction in greenhouse gas emissions will take place (Ministry for the Environment, 2008). In order to ease pressure on enterprises and to ensure a balance between mitigating climate change and maintaining New Zealand's economic interests, the government has decided to allocate AAUs on a transitional basis till the time a clear price on greenhouse gas emissions internationally is established. Free allocation of AAUs will be in place until 2018 and then a phase out process will begin to end the free allocation by 2025 because by this time the government expects certainty on the price of GHG emissions globally (Ministry for the Environment, 2008, p.18).

Comparison between European and New Zealand ETS shows that there is little difference in the architecture and design of both the schemes. Kruger and Pizer (2004) term emission trading as "the new grand policy experiment" and "a fundamental change in environmental governance" (p.1). In the following section, I discuss whether the European ETS has achieved its greenhouse gas reduction targets. Secondly, what key lessons does the European ETS offer to New Zealand in implementing an effective climate policy?

5.3 Assessment of European Union Emission Trading Scheme

Almost a year after implementing the ETS the European Commission published its first assessment in May 2006. The assessment indicated an over allotment of free AAUs to installations. Over allotment of AAUs to installation triggered a decline in price of AAUs. The price dropped from €30 to €12, briefly slipping below €1 (Skjaeserth and Wettstad, 2008, p. 5). Despite over allocation of AAUs and the subsequent sharp decline in the price during pilot phase (2005 – 2007) the European Commission called the policy remarkable (Skjaeserth & Wettstad, 2008). In its defence, the European Commission argued that the pilot phase of the scheme was a trial or beta stage and that it intends to use the assessment towards addressing the gaps that exist in its climate policy. In Hepburn's (2007) view, in case the objective of implementing the European emission trading mechanism was "no action and no prospect for future action, on

climate change” (p.380) then the ETS can be awarded a positive report card. But if the objective was to achieve significant reduction in greenhouse gas emissions of the European continent by implementing rigorous policies then the European ETS fails miserably in its endeavour.

Tangen & Hasselknippe (2005) provide an optimistic view by pointing out that the most positive aspect of European ETS is its existence because creating a European continent wide carbon reduction policy involved an exceptionally difficult task of coordination between multiple stakeholders, each with their own interests. The existence of a mechanism that provides potential of and profit from trade of greenhouse gases may have resulted in installations and stakeholders consenting on implementing an ETS. Ellerman & Buchner (2006) in their survey research note that the European ETS has had some effect on installations taking abatement measures. 15 per cent of the respondents to their survey reported taking abatement measures along with 65 per cent of respondents taking some abatement measures (Ellerman & Buchner, 2006, p.19). The achievements however are reasonable in comparison to the target of eight per cent reduction in greenhouse gas emissions that the European Commission intends to achieve by 2012.

In Hepburn’s view, the European Commission made no efforts to address issues highlighted in the multiple assessments of the scheme. The issues exist at the conceptual level and the commission chose to ignore the assessment results and began first phase of the mechanism without rectification. The most “egregious” (Hepburn (2007, p. 283) of conceptual gaps that the commission has failed to fill is benchmarking of AAUs to installations. For instance, in 2005 total emissions were approximately 80 million tonnes (four per cent) less than the number of free AAUs allotted to installations in order to cover 2005 emissions. This resulted in 17 member states of the European Union receiving extra AAUs⁴ (Hepburn, 2007) and in windfall profits for most installations. For example utilities in the United Kingdom alone received 800 million pounds worth of AAUs, German power company RWE alone received \$6.4 billion windfall of AAUs (Skjaeserth & Wettestad, 2008). Sandbag, a community interest organisation based in the United Kingdom reported that over allocation during the pilot phase of the mechanism resulted in top European emitters accumulating enough AAUs to grow their emissions by 50 per cent until 2020 without paying compensation to pollute the

⁴ Major over-allotments: - Lithuania - 50 percent over, Denmark, Estonia, Finland and Latvia - 25 percent over, Germany - 4.2 percent over and Poland - 12.8 percent over

environment. Even after the assessments carried out during the pilot phase this gap in European ETS was not plugged as installations stand to gain around 700 million surplus AAUs from the first phase of the EU ETS which ends in 2012 (Sandbag, 2009). Hepburn, Quah and Ritz (2006) argue that when the ETS was being conceptualised had the commission decided to auction half of the total AAUs this would not have reduced profit margins for participating installations and there would have been no misuse of a tax payer funded government policy.

The second critical issue with European ETS is its inability to stimulate investment in low carbon technology. The policy does not provide any incentive to encourage enterprises towards research and development of innovative low greenhouse gas emission technology. Enterprises that decide to make such an investment do so in hope that the shift to a low carbon economy will provide return on their investment. The Commission must put in place incentives for installations that take the initiative of investing in low emission technology research and development. It must also tighten the cap on the amount of emissions that each installation can emit. Multiple measures at all scales are required in case the European Union is serious about achieving its goal of 60 per cent reduction in emissions by 2050 (Hepburn, 2007; Betz & Sato, 2006).

5.4 Lessons for New Zealand from European Emissions Trading Scheme

The European ETS being the oldest emission trading mechanism can serve as a model for any nation state keen on developing its climate policy based on trade of greenhouse gas emissions. As a model the European ETS not only offers the architecture on how to set up a trading scheme but also the chance to learn by assessing the impact of European ETS in reducing emissions. A brief discussion on gaps in the European ETS in the last section revealed that even though the intention of policy makers in implementing the European ETS is to achieve reduction in greenhouse gas emissions, the current architecture of the mechanism may not achieve this goal. Policy makers in New Zealand must use assessments of the European ETS in order to plug gaps in the New Zealand ETS if their goal is to achieve actual reductions in this country's greenhouse gas emissions. Some points are discussed briefly below.

One of the first steps that the New Zealand government needs to take is to impose tougher emission caps on power companies. The government can impose tougher emission caps for a number of reasons. Firstly, the power generation sector does not suffer from carbon leakage; therefore the sector cannot use this excuse towards seeking

lighter emission caps. Secondly, power generation companies have decided to pass on extra costs incurred due to ETS on to consumers thereby, the ETS will not affect their profits. Thirdly, in comparison to other sectors power generators have viable low emission technology alternatives available to use (Bertram & Terry, 2010; Sandbag, 2010).

AAUs must be auctioned instead of being provided free of cost to business and industry. Auctioning AAUs will reduce lobbying by powerful corporations thus limiting their influence on policy development and implementation. Auctioning will provide the government with revenue which it can offer to poor households who cannot afford additional costs imposed by ETS or collected revenue earned can be invested in research and development of low greenhouse gas emission technologies. The government must also ensure that ETS, being a tax payer funded policy, is accountable to the taxpayer not to large corporations. Details of the scheme must remain accessible to the tax payer and stakeholders in the scheme as a method of timely analysis and to plug exploitation of the system where necessary (Bertram & Terry, 2010; Sandbag, 2010).

5.5 Chapter Summary

This concludes the comparative analysis of New Zealand and European emissions trading scheme. In the process of this comparison, a number of themes emerged that differentiate the European and New Zealand ETS. The European ETS was implemented in 2005 and currently has 30 member states under its ambit with the target of achieving eight per cent reduction in Europe's greenhouse gas emissions by 2025. The existence of a mechanism that covers such diverse stakeholders (from developed nation states such as Germany and United Kingdom to less developed Eastern European countries such as Ukraine and Poland) is notable. Although the European ETS can by no means be termed perfect it exists as a model for other countries that want to develop a cap and trade based climate policy. The policy has been reviewed on a yearly basis since its implementation yet the Commission has not been able to rectify one major gap in the policy. Free allocation of AAUs has resulted in "windfall gains" for many installations with some large installations accumulating enough AAUs to carry on business as usual till 2020. During the third commitment period beginning in 2013 the commission has finally sought to address the issue of over allocating AAUs. The commission will auction half of the total AAUs that are at present allocated free of charge to

installations. It will also ask airlines flying from and into any European airport to participate in its ETS.

Even though the architecture of the European and New Zealand ETS is not very different there are some aspects in the NZ ETS that can be amended for it to achieve some greenhouse gas reduction with in New Zealand. The New Zealand government has ruled out the option of auctioning AAUs to business and industry under the rationale that in case business and industry were made to pay for AAUs this will have significant negative impact on their competitiveness. However if the government is serious about achieving any reduction in greenhouse gas reductions then it must follow the European ETS and in future auction AAUs to business and industry. Multiple assessments by the European Commission have ruled out any significant effect on profits of business and industry due to auctioning of AAUs. Secondly, under the 2009 amendments the New Zealand government now allocates free AAUs to each participating enterprise on the basis of its previous year's emissions. This incentivises enterprises to increase their emissions each year in order to gain AAUs. In comparison the European ETS allocates AAUs based on the grandfathering principle that is allocation of AAUs on historical levels of emissions. The New Zealand ETS must be amended to prevent transfer of money from ordinary New Zealanders to business and industry. The next chapter introduces the concept of content analysis as a theory and methodology for research. This approach is applied as an analytical strategy to shed light on public perception as a motivation and driver in the implementation of New Zealand ETS.

Chapter Six: Content Analysis Theory and Methodology

6.1 Introduction

This research examined texts of policy documents, national newspapers, current affairs and business magazines in order to understand the factors that informed the New Zealand government's response to Climate Change – specifically the Emission Trading Scheme. Using content analysis as the methodology I critically examine how the concept of climate change is perceived by key stakeholders who are relevant to policy decision process in order to uncover the motivations and drivers that informed the decision to implement an emission trading scheme. This section provides description of content analysis and its application in research as a basis for next chapter which focuses on critical analysis of the issues under review.

6.2 Content Analysis and its applications

Content analysis is defined as “a research technique for systematic classification and description of communication content according to usually predetermined categories” (Wright, 1986 cited in Berger, 2000, p. 173). Krippendorff (2004) contends that content analysis is a research technique for making replicable and valid inferences from text or other meaningful matter to the contexts of their use. That is, it allows the researcher to systematically sift through data and identify texts most relevant to their research context. In other words this method can be used towards the current research in identifying relevant information reported in the New Zealand press. Content analysis involves analysing the message in the communication process using as precise, objective, and systematic measures as possible. Accordingly, it is a reliable and unobtrusive research method used to produce recurring deductions from texts for use as required. It is a scientific and reliable tool involving the study of recorded human communication that enriches knowledge of the researcher. As a research method content analysis is applied to the study of numerous forms of communication (Fergusson, 2000).

Babbie (2008) asserts that content analysis is not limited to books, journals, or newspaper/magazine articles. It can include works of art, images, sounds, signs, symbols; even numerical records and political campaigns. This flexibility in studying and analysing materials permits the researcher to use sizeable amounts of written data towards identifying their research (Krippendorff, 2004). Thus, content analysis is an invitation to read relevant texts in order to make sense. In this research endeavour, the

selected articles in the national and regional newspapers as well as magazines on policy serve as key sources of information that enable me to make sense out of the ETS debate in New Zealand. The sources also serve the purpose of this research, throwing more light on the subject and making it easier for my understanding of the key issues and ideas behind each stakeholder's point of view. Lastly, content analysis contributes to understanding the media reportage on the critical issue of climate change and climate policy.

For instance, the New Zealand press and media's general coverage of the Emission Trading Scheme (ETS) debates is largely understandable. It confirms what Schechter's observation that the worst sin of our press is not its blatant biases, or crimes of commission, but rather the pervasive patterns of omission. Instead of reporting the actual facts on climate change and ETS, the New Zealand press rather concentrated on personality reporting, less analytic and sidestepping the most important fact about climate change and ETS that the public needs to know. Indeed as a media critique, Schechter (2012) suggested that if one wants to know more about an economy then one should not read the press. By extension, one can say that any issue that has to do with policy and politics, the press should be the least to be depended on. Thus, issues that have to do with personal interest, in particular financial, the tendency to influence the press is very high as pointed out by Abeshouse (2011) on "The Koch Brothers" in the USA, described as radical libertarians who use their money to oppose government and virtually all regulation as interference with the free market. In fact, this is the essence of neo-liberalism that has taken the world by surprise. Most recently the Koch Brothers have spent considerable amount of money in ensuring that scepticism on climate change and its science is kept alive. This is because the Kochs have major business interests in fossil fuels all over the United States, in particular, and the world in general

In order to develop a balanced analysis on the emission trading scheme, I read a number of reports, commentaries, analyses and debates that focused on the science, the policy approach, philosophical understanding and normal assumptions of ETS in New Zealand. This enables me to understand thoroughly the issue under review.

6.3 Context of use

Emission trading scheme, though developed in theory some time ago under the United Nations Framework Convention on Climate Change, was implemented in New Zealand in July, 2010. In order to research the factors that informed New Zealand government's

decision to implement the scheme, one can use a number of research techniques. In consideration that the emissions trading scheme is a legislation I feel that reading texts that help me understand ideological, political, economic and legal reasons that prompted the New Zealand government to adopt emissions trading as its preferred climate change policy allows me to develop an in-depth understanding of these factors. In reading the relevant texts, my attempt is to investigate the prevailing national and international ideology and the ideological leanings of political parties when the debate on New Zealand's climate policy was at its peak.

Within content analysis one can create a non-probabilistic or a probabilistic sample. Towards this research, non-probabilistic sampling was used to identify relevant national and regional newspapers, business and current affairs. Newspapers and magazines were selected due to the purpose of higher readership. Some claim that higher readership of newspapers or magazines increases the probability of finding quality arguments towards the research question, but critiques such as Schechter (2011) will disagree and point to credible evidence to support his arguments. In order to effectively manage the amount of data at my disposal, this research studied content for 2007 and 2008, from *the New Zealand Herald*, *the Dominion Post*, *New Zealand Listener*, *the National Business Review* and the three regional dailies. This data range was carefully chosen to enrich the literature further. Choice of the short time frame was due to a number of reasons. These include a period when New Zealand experienced change of government from Labour to National, and for that matter change in policy debate. Secondly, this was the period when the issue was pronounced and debated passionately in New Zealand society (Bertram & Terry, 2010), and finally this short period enabled me to effectively manage the amount of data needed for this research.

Once the process of data collection was completed, a thematic analysis of this data was undertaken. Data collected were categorised under the themes of ***no climate change; yes climate change, yes to market, no to ETS; yes climate change, no market, only ETS; yes climate change, yes to market and yes to ETS***. Once tabulated as per each themes the next step is to understand if the writer believes in climate change or not. In case the writer does not believe in climate change what are the reasons for this. In case the writer believes in climate change what sort of policy mechanism does the writer support towards addressing climate change? The idea underpinning the thematic analysis is to understand the ideology from which each writer has based their argument on. A detailed analysis of this is presented after the thematic tables.

6.4 Methodological Approach

For the purpose of this thesis methodological approach of thematic analysis was used. Thematic analysis is a qualitative analytic method for identifying, analysing and reporting thematic patterns within data. Although widely used, Braun and Clark (2006) note that “there is no clear agreement about what thematic analysis is and how you go about doing it” (p. 79). A number of methods can be termed as thematic analysis and can be supported with a series of ontological and epistemological positions and theoretical frameworks. Braun and Clark elaborate on the above point, observing that thematic analysis can be essentialist or realist method, which reports experiences, meanings and the reality of participants, or it can be a constructionist method, which examines the ways in which events, realities, meanings, experiences and so are the effects of a range of discourses operating within the society (Braun & Clark, 2006, p.81).

Delanty (2006) adds that thematic analysis is a contextualist technique placed between paradigms of essentialism and constructionism, characterised by theories such as critical realism. The contextualist approach focuses on the ways that individuals make meaning of their experience as well as the ways the broader social context impinges on those meanings, while retaining focus on the material and other limits of reality. Thereby, as articulated by Braun and Clarke (2006), thematic analysis can be used to reflect reality as well as to unpick or unravel the surface of reality. The researcher examines references and cross references and follows it up by observing and denoting patterns or themes that emerge through analysing the data (Braun & Clarke, 2006).

For the purpose of this research, a thematic analysis was undertaken within such a critical realist⁵ and the broader constructionist⁶ framing, with the aim of unpicking the surface of reality to understand reasons that determined New Zealand government’s decision to implement an emission trading scheme as its climate policy, instead of other alternatives.

The use of thematic analysis here is in line with Braun and Clarke’s description of a thematic analysis at a latent level, going beyond the semantic content of the data and starting to “identify or examine the underlying ideas, assumptions, conceptualisations

⁵ Critical realist: works under the assumption that our capacity to understand reality is imperfect, and argues that assertions on reality must subject to wide critical examination in order attain the best understanding of reality possible. (Harvey, 2002).

⁶ Reconstruction of existing knowledge (Nonaka, 1994).

and ideologies that are theorised as shaping or informing the semantic content of the data” (Braun & Clarke, 2006, p. 84).

6.5 Strengths of Thematic Analysis

Thematic analysis provides a mechanism of organising and summarising the findings from a large, diverse body of research. It can be used towards quantitative and qualitative findings (Mays, Pope & Popay, 2007). In context of this research data is collected from diverse sources within New Zealand press. Thematic analysis is used by the researcher because this methodology helps organise and summarise the large source of data in a simplified manner.

6.6 Limitations of Thematic Analysis

Wimmer and Dominick (2006) assert that requirement and methodology of content analysis is time consuming and monotonous. The task of examining and categorizing large volumes of content is often laborious and tedious. This is true in this case. For instance ploughing through hundred copies of the *New Zealand Herald* or 50 issues of the *National Business Review* tests the patience and motivation of the researcher. Secondly, there is a small risk that the researcher may stretch the conclusions or analysis to suite their ideology or political leanings. Instead a balanced argument derived on the basis of research is critical to ensure the validity of any research.

The following chapter uses the theoretical base provided by this chapter to create the thematic tables.

Chapter Seven: Thematic Analysis

7.1 Introduction

The focus of this research is to enquire about the factors that informed the New Zealand government's decision to implement an emission trading scheme as its climate policy. In an attempt to answer the research question, this research undertakes a thematic analysis of selected media documents. Documents being analysed are opinion pieces, editorials and letters to the editor in daily metropolitan newspapers (*The New Zealand Herald* and *The Dominion Post*), current affairs magazines (*New Zealand Listener*), business journal (*The National Business Review*) and regional newspapers (*Manawatu Standard*, *Taranaki News Daily*, *The Press* and *The Marlborough Express*). Analysed documents are presented in a tabular form in order to create a summary of the key themes identified during the research. By no means has the research exhausted all of the sources available towards the topic.

The choice of particular newspaper was based on the coverage as well as the content it publishes. In other words the choice of national and regional newspapers was based on strategic reasons, so that opinions from most key stakeholders and opinion makers is shaping opinion on a key public policy issue can be represented. For instance, *The New Zealand Herald* is the largest national daily newspaper and covers the whole country. *The Dominion Post* published in Wellington covers national political issues especially controversial legislations such as the ETS. *New Zealand Listener* provides in-depth coverage on sensitive issues of national significance. In fact, the articles and opinion pieces are usually both intensive and extensive in analysis from leading senior journalists. *The National Business Review* is the largest business magazine in the country with strong influence both in the business community and government. Similarly, the three regional dailies, the *Manawatu Standard*, *Taranaki Daily News*, and the *Marlborough Express* are published from three of New Zealand's farm regions. Together with the *Christchurch Press*, they represent the voice of the farming and agriculture sector in the country.

7.2 Research rationale

My interest in climate policy research was formed after the 2006 tsunami in South East Asia that caused massive destruction and killed more than quarter of a million people. Reports in media suggested that the tsunami was an unusual event. The more I read

about the reasons behind the tsunami the more interested I am to understand what solutions humans could provide. Common debate and understanding about the underlying reasons behind such a catastrophe pointed to changing climatic conditions. The IPCC in its multiple assessment reports to date has indicated that changes in climate are occurring because of excessive greenhouse gases discharged into the atmosphere due to human activity. The IPCC has also highlighted the need to cap rising global temperatures at 2⁰ centigrade. The IPCC warns that a rise beyond this prescribed level is likely to affect ecosystems negatively. The IPCC amongst other reputed scientific institutions highlight the need to reduce greenhouse gas emissions by developing low emission technology.

Hammond, Keeney & Raiffa (2002) note that “the way in which you define a problem will determine what you do about it” (p. 6). The problem of climate change has been clearly defined by a number of scientific institutions. The solutions to the problem however have been lacking for a number of reasons. The most significant reason for the lack of a comprehensive climate policy that addresses the concerns highlighted by IPCC is human reliance on fossil fuels as these are cheap energy sources. An analysis of the international response on climate change reveals that the international community reached the consensus on Kyoto Protocol after significant negotiations. Similarly, as noted in section 2.3 of Chapter 2 in this thesis, New Zealand’s climate policy has been in the making since 1990 while the Kyoto Protocol was adopted in 1997 and came in to force in 2005 (UNFCCC, 2011b). As part of its international obligations New Zealand ratified the Kyoto Protocol in 2002 and on the basis of it signing an international climate treaty, the New Zealand government passed the climate change legislation in parliament in 2007. By ratifying the Kyoto Protocol and establishing a climate change legislation the New Zealand accepted its obligations to combat climate change to the international community. Based on the Kyoto Protocol and 2007 climate change legislation the government implemented an emission trading scheme in 2010. Implementation of ETS attracted considerable amount of debate with proponents arguing that it is the best mechanism on hand to achieve the desired reduction in New Zealand’s greenhouse gas emissions, while opponents argued that the mechanism does not achieve even a small percentage of the expected outcomes.

7.3 Sample Selection and thematic table

The research analyses large volumes of content in the print media from 2007 and 2008, comprising national, regional and sector newspapers and magazines. This is presented

in a thematic table, clearly pointing out opinions, debates and analysis as captured in the media. The table is divided into three columns, with the first containing what has been reported in the media. The second column contains the name of the paper, title or caption of the information/story, the author and date of publication. The last and final column highlighting the position from the point of view of the researcher.

Thematic table of data collected are presented in the next section.

7.5 Thematic Tables for 2007 and 2008

Table 1: Regional Newspapers

Comment	Publication, Title, Author and Date	no climate change	yes climate change yes to market no ETS	yes climate change no market only ETS	yes climate change yes to market and yes to ETS
Professor Bob Carter argues that evidence of human activity causing climate change is inconclusive. The need is to take a rationale view point rather than to implement an ETS.	Taranaki News Daily, Emission Scheme Waste of Cash, Ryan Evans, 17 April 2008	☑			
ETS leads to increase in cost of living with no guarantee of any reduction in greenhouse gas emissions. ETS may lead to loss of indigenous ecosystems.	The Press, Emissions Scheme Rethink Urged, Colin Espiner, 30 April 2008		☑		
Emissions Trading Scheme used by the Labour Party as a ploy to win 4 th term in office.	Manawatu Standard, PM goes spineless on emission trading, Michael Cummings, 9 May 2008	☑			
New Zealand Government will earn billions of dollars while already struggling households face higher power and petrol prices.	The Press, Govt's Big Green Cash Machine, Colin Espiner, 17 June 2008	☑			
ETS will reduce food production by 30 per cent, cost jobs and add to household costs – Frank Brenmuhl, Vice President, Federated Farmers.	Taranaki News Daily, Trading Scheme an Economic Disaster, Richard Wood, 8 July 2008	☑			
ETS does not reduce greenhouse gas emissions. It pays for New Zealand's Kyoto liability. Farmers can use ETS to make money by converting dairy farms in to carbon sinks	Taranaki News Daily, Carbon Value May Be Key to Farm Profits, Editorial, 10 July 2008				☑
ETS is a red herring, it does not solve global warming – Mark O'Connor, Deer Industry, CEO	Manawatu Standard, Respect Deer Industry, Jill Galloway 12 August 2008		☑		

Comment	Publication, Title, Author and Date	no climate change	yes climate change yes to market no ETS	yes climate change no market only ETS	yes climate change yes to market and yes to ETS
Implementing an ETS will substantially reduce the value of its forestry assets - Iwi group Ngai Tahu.	The Press, Editorial, Dominant Issues, 3 September 2008		<input checked="" type="checkbox"/>		
ETS will drive up the cost of petrol, double electricity pricing. It is a rushed legislation	The Marlborough Express, Hot and Cold on Emission Law, Jo Gilbert and Rose Daly, 11 September 2008		<input checked="" type="checkbox"/>		
ETS could provide farmers with flexibility and better cash flow	The Marlborough Express, ETS review sparks scepticism, Editorial, 24 December 2008				<input checked="" type="checkbox"/>

Table 2: The New Zealand Listener

Comment	Publication, Title, Author and Date	no climate change	yes climate change yes to market no ETS	yes climate change no market only ETS	yes climate change yes to market and yes to ETS
An emission market can see New Zealand transferred to a regional hub where companies can trade the right to emit greenhouse gases.	The New Zealand Listener, Green Gold, David Young, 21 May 2007				<input checked="" type="checkbox"/>
Increased costs of ETS may lead to unsustainable household budgets.	The New Zealand Listener, Take Another Hike, 29 September 2007		<input checked="" type="checkbox"/>		

Comment	Publication, Title, Author and Date	no climate change	yes climate change yes to market no ETS	yes climate change no market only ETS	yes climate change yes to market and yes to ETS
Emissions Trading Scheme is “ Corporate Welfare ”. It does not curb emissions as it exempts pastoral farming and allows business as usual.	The New Zealand Listener, Coming Carbon Crunch, Simon Terry, 31 May 2008		☑		
ETS part of the solution not whole solution to climate change.	The New Zealand Listener, Sachs Therapy, Joanne Black, 16 August 2008				☑
ETS transfers wealth from tax payer to business. The taxpayer lives in hope that with their hard earned dollars Planet Earth may survive.	The New Zealand Listener, Emission Impossible, Jane Clifton, 13 September 2008				☑
ETS robs the present generation and leaves the future generation impoverished and homeless.	The New Zealand Listener, Shock Value, Bill Ralston, 20 September 2008		☑		
ETS may not be a perfect tool however scraping the ETS or withdrawing from the Kyoto Protocol is not the answer.	The New Zealand Listener, Nothing to Hide, Editorial, 29 November 2008	☑			

Table 3: National Business Review

Comment	Publication, Title, Author and Date	no climate change	yes climate change yes to market no ETS	yes climate change no market only ETS	yes climate change yes to market and yes to ETS
ETS may cause “carbon-leakage”	National Business Review, Straw man ignites an emissions trading bonfire avoiding ‘Carbon Leakage’, Editorial, 12 October 2007		☑		
ETS to inflate costs for shipping industry by 30 per cent.	National Business Review, Shippers seek credit or exemption, Opinion, 16 May 2008		☑		
ETS an uncertain and complicated answer to uncertain science – Alastair Hercus – Buddle Findlay Lawyers	National Business Review, ETS a potential merry go-round Hot Air AAUs Foreign Assigned Amount Units, Opinion, 3 July 2008		☑		
The New Zealand ETS does not aid the transition towards extra costs by imposing a block on buying cheap units from Eastern European Countries. The costs of normal emission units in comparison to the Eastern European ones are very high (average costs of normal unit \$25 while average cost of Eastern European unit \$15). Additional costs which can be saved will significantly affect export competitiveness of New Zealand business.	National Business Review, Export Competitiveness Faces Challenges, Opinion, 19 September 2008		☑		

Table 4: The New Zealand Herald

Comment	Publication, Title, Author and Date	no climate change	yes climate change yes to market no ETS	yes climate change no market only ETS	yes climate change yes to market and yes to ETS
Emission trading contributes to New Zealand in two ways. It helps business profit via trading and reduces New Zealand's greenhouse gas emissions.	New Zealand Herald, Our View – Trading out of global warming, Editorial, 11 May 2007				☑
ETS is uncertain for New Zealand as the price of carbon is and will be linked to the international carbon market.	New Zealand Herald, Global linkage to Carbon Pricing, Brian Fallow, 22 September 2007		☑		
ETS transfers wealth from taxpayers to farmers. Decision to exclude agriculture will cost \$1.56 Billion a year to taxpayer.	New Zealand Herald, Farmers to reap \$1.56 billion from concession: Economist, 22 September 2007		☑		
ETS does not lead to significant reduction in greenhouse gas emissions but will put thousands of jobs and future investment in New Zealand at risk	New Zealand Herald, Emissions Trading May Hit Future Investments, Brian Fallow, 13 November 2007		☑		
Better to meet Kyoto targets by purchasing Certified Emission Reduction (CER's) units rather than setting up an ETS that effects profits, jobs, incomes and exports	New Zealand Herald, Credits cheaper if taxpayer foots the bill, Brian Fallow, 1 May 2008		☑		
ETS is not the right option as it forces business and industry to shut shop and move overseas – multiple CEO's	New Zealand Herald, Emissions Trading Scheme could damage economy, Owen Hembry, 10 May 2008		☑		
Government must stand up to big business and ask it to reduce greenhouse gas emissions or pay for polluting the environment.	New Zealand Herald, Letters to the Editor – Brevities, Lucy Hawcroft, 21 May 2008				☑
ETS a failure for most stakeholders. It fails individuals, exporters, business and employers. The policy appears rushed	New Zealand Herald, Rushed Emission Law Will Cost Dearly, Editorial,		☑		

Comment	Publication, Title, Author and Date	no climate change	yes climate change yes to market no ETS	yes climate change no market only ETS	yes climate change yes to market and yes to ETS
and the Government could have taken more time to put in place a more effective and affordable scheme	1 September 2008				
The ETS may cause costs for individuals and families to rise but the end goal of the policy is to make polluters pay.	New Zealand Herald, Bills Makes Polluters Pay the Cost, Brian Fallow, 9 September 2008			<input checked="" type="checkbox"/>	
ETS as New Zealand's climate policy benefits New Zealand, its farmers, its exporters and individuals, families. In case New Zealand does implement a climate policy not just current but future generations stand to pay a heavy price.	New Zealand Herald, Farmers will suffer if trading scheme dumped, Paula Oliver, 23 October 2009				<input checked="" type="checkbox"/>

Table 5: The Dominion Post

Comment	Publication, Title, Author and Date	no climate change	yes climate change yes to market no ETS	yes climate change no market only ETS	yes climate change yes to market and yes to ETS
Implementing an ETS creates the first carbon market in Asia Pacific region. This can be leveraged to create a financial services hub in New Zealand creating jobs and economic growth.	Dominion Post, Carbon Trading Platform Unveiled. Sue Allen, 2 May 2007				<input checked="" type="checkbox"/>
Extra costs imposed on business and industry due to ETS may force move overseas.	Dominion Post, Fletchers warning shot over Carbon Trading, Gareth Vaughan, 15 November 2007		<input checked="" type="checkbox"/>		

Comment	Publication, Title, Author and Date	no climate change	yes climate change yes to market no ETS	yes climate change no market only ETS	yes climate change yes to market and yes to ETS
ETS to cost lot more than advised by Government. Greenpeace New Zealand says taxpayer to pay between \$819 million to \$1.3 billion.	Dominion Post, Emissions Plan Flawed says Greenpeace, Tracy Watkins, 4 March 2008		☑		
Possible to achieve Kyoto protocol commitments without an ETS or carbon tax.	Dominion Post, Letters to the Editor, Graham Dick, 21 May 2008		☑		
ETS deeply flawed as it focuses on accounting of who pays the carbon bill instead of reducing GHG emissions.	Dominion Post, Picking up the Emissions Bill, Editorial, 8 September 2008		☑		
Farmers argue that as there is no alternative available at the moment to animals emitting methane covering farming under ETS is unfair.	Dominion Post, Farmers eager for Key to deliver on promises, Jon Morgan, 11 November 2008	☑			

7.6 Discussion of research findings

To critically analyse the data from the research, I used a total of 37 articles, opinion pieces and letters to the editors from national and regional newspapers and magazines. Out of the thirty seven used, twenty one (21) argued against the ETS and the remaining are in favour or have taken neutral position. Viewpoints, articles and letters to the editor that oppose the ETS are in higher proportion regardless of the newspaper or magazines targeted readership (rural, semi-urban, urban or national). The arguments presented in newspapers and magazines however are based on the readership of the publication as I will explain later in this chapter.

Generally speaking arguments for and against the ETS were based on a number of factors. Some opinion pieces provide opinions of individuals or groups based on their interest, while some opinion pieces base their rejection of the mechanism due to ethical reasons; others argue that an ETS does not make any rational sense based on their understanding of economics. Viewpoints, editorials and letters to the editors that support the ETS are similar to opponents based on stakeholder interest, ethics or economics.

Opponents of the ETS argued that the scheme is designed to encourage carbon leakage that will ultimately drive business and industry out of New Zealand to countries with no or little climate regulation. For instance Catherine Beard, executive director of the Greenhouse Policy Coalition, a business lobby group, argued that the ETS will send a wrong signal to the business community: “It’s pretty much saying invest your capital somewhere else” (*The National Business Review*, 10 October 2007, p.40). Jonathan Ling, chief executive of New Zealand’s second largest share listed company Fletcher Building also made similar remarks saying “If we impose significant costs on our industry here that is out of sync with our competitors in other parts of the world, then the only thing that will happen is businesses will close down here and they’ll get shifted offshore” (*The Dominion Post*, 15 November, 2007, p.46). The chief executive of Fonterra, Andrew Ferrier also shared concerns highlighted by Beard and Ling saying that global greenhouse gas emissions could increase along with revenue of overseas competitors in case the ETS was not amended to suit New Zealand businesses. Ferrier argued that Fonterra was amongst the cleanest and least greenhouse gas emitting dairy producers globally and “if we have more constraints put on existing dairy production or growth of our production in New Zealand, other countries will fill the supply gap. These other countries are likely to be less carbon efficient than us and so more emissions

would be pumped into the atmosphere as a result” (*The New Zealand Herald*, 10 May 2008, p. 68). The position taken by the businesses community in New Zealand is understandable. ETS will require them to reduce their emission into the atmosphere when implemented, thereby directly affecting their so called return on investment, drastically reducing their profit margins, hence the unnecessary and indefensible cry through the media. The logic is simple. For instance increase in Fonterra’s carbon emissions will be regarded as efficient from the business perspective as profit will flow from that. However, this will have devastating consequences on the environment in the long run if allowed to continue. Indeed this is highlighted by Noam Chomsky’s (1999) assertion on neo-liberalism that private interests finds ways to maximise their control on social life in order to maximise profits.

Opponents also complained about suffering from lack of competitiveness due to implementation of the ETS. For instance, the New Zealand shipping industry argued that placing the industry under the scheme and not providing access to carbon credits will provide foreign shipping companies significant advantage. The executive director of New Zealand Shipping Federation, Sam Buckle, said that 30 per cent of the federation’s costs were fuel costs and argued that “The ETS is going to seriously inflate that cost – yet our main competitors won’t have to pay” (*The National Business Review*, 16 May 2008, p.73). Based on his argument of increased costs, Buckle made the case towards seeking free allocation of units from the government saying that “Access to emissions credits should be based upon a business’ exposure and vulnerability to international competition, not the type of energy it uses. That is a fundamental point of fairness” (*The National Business Review*, 16 May 2008, p.73). He further added that overseas shipping companies are not subjected to local costs such as ACC, GST, and PAYE. This differentiation in costs provides foreign shipping companies with substantial advantages and that the ETS will further exacerbate that advantage (*The National Business Review*, 16 May 2008, p.73). Buckle’s argument appeared passionate, very strong and convincing. This is opposition of ETS from a business and goes to attest to argument by a number of scholars including, Grubb, Gardiner, Broome and Stern, who pointed out that due to the significant reliance of business and industry on cheap fossil fuels, governments face strong resistance from business and industry towards reducing or regulating usage of fossil fuels (Broome, 2008; Stern, 2007; Gardiner, 2006; Grubb, 1995). Additionally, one can point to the use of weak evidence to support their claim is unconvincing to the environmentalist, and the better the New Zealand shipping

companies find incontrovertible evidence to show, the better. In fact, available evidence in this line of thinking is at best sketchy, and at worse untenable.

Some opponents have argued that ETS may not address the core issues of climate change. They add that, rather it will increase costs for everyone and also lead to lower profits. For instance, the chief executive of the deer industry said: “We don’t support the introduction of the scheme at all. We believe it won’t address the issue of greenhouse warming at all. The ETS is a red herring. The industry is worried about how much it will cost deer farmers. At the high end, of \$50 a tonne, it will drop profits for deer farmers by 200 per cent, which they can’t afford” (*Manawatu Standard*, 12 August 2008, p.6). This position is supported by climate scientist Bob Carter (2008), who argues there was not enough scientific evidence behind climate change. He made this argument on a tour of 10 North Island centres. In one of the presentations of “his theory” to a group of about 100 people in Stratford; New Zealand, he said: “you might as well stand in the shower and tear up \$100 notes for all the good the Kyoto Protocol and Emissions Trading Scheme will do” (*Taranaki Daily News*, 17 April 2008, p.12). Professor Carter suggested that the scientific theory used by people to justify climate change has not been validated. He therefore argued that designing a climate policy that is based on inconclusive evidence which seeks to address agendas set by politicians and bureaucrats is not in the interest of New Zealand farmers (*Taranaki Daily News*, 17 April 2008, p.12). Bruce Richmond, Marlborough dairy representative for Federated Farmers, shared similar views saying, “all of us are extremely concerned about the ramifications, it will add huge costs to our operations, it will probably be the end of some of them. ETS was far too rushed and there is not enough science to back it” (*The Marlborough Express*, 11 September 2008, p.4). The position of the New Zealand Deer industry appeared uncompromising, but what makes it unsustainable is the lack of objectivity in how this calculation was done. He failed to tell us the average profit of the farmers as this would have given us the clue to make our own calculation and draw conclusion instead. Similarly, Bob Carter’s assertion that climate change is inconclusive is something that needs to be desired in particular coming from an academic. However, the fact that his presentation was done to those to be affected by the policy, questions his independence and academic integrity.

Some intellectuals offered moral positions against the ETS. For instance Simon Terry, an economist and current executive director of the Sustainability Council writing in the *New Zealand Listener*, argued that emissions trading scheme is based on a sound idea

that imposition of a price on all greenhouse gas emissions will force emitters to pay or reduce their GHG emissions. However, based on the 2008 architecture of ETS, it would achieve only two per cent reduction in greenhouse gas emissions. This would leave New Zealand's emission 30 per cent over its Kyoto target. Terry calls the ETS "corporate welfare" because the scheme transfers a significant amount of wealth from ordinary consumers to already well off agricultural producers (*New Zealand Listener*, 31 May 2008). Terry further argues that excluding agriculture from ETS until 2013 is a concession worth around \$1.56 billion (*The New Zealand Herald*, 22 September 2007, p. 38).

Greenpeace New Zealand views the ETS as a "fatally flawed" mechanism because it imposes a bill of between \$819 million to \$1.3 billion on the taxpayer towards the cost of the schemes. This imposition of an implicit tax on ordinary New Zealanders represents a failure by the government to ensure measures that significantly drive down greenhouse gas emissions in business and industry are implemented (*The Dominion Post*, 2 May 2007, p11). The Institute of Economic Research estimated that ordinary households will end up paying approximately \$3000 a year due to rise in day-to-day costs such as power bills, petrol, disposing of rubbish, and buying milk. Institute of Economic Research also predicted a wage drop of about \$90 a week or job losses if ETS were to be implemented (*The New Zealand Herald*, 1 May 2008, p. 58).

The findings support the theory of climate change; the UNFCCC (1992) and Kyoto Protocol (1997). For instance, Professor Jeffrey Sachs considers emission trading scheme as one part of the multiple steps that New Zealand and the world must take to reduce greenhouse gas emissions. He argues that an ETS is by no means the complete solution. The real solutions are going to come through new kinds of power plants, new kinds of automobiles, new kinds of buildings based on new kinds of building codes, new energy efficiency standards for appliances, motors and other purposes. The mechanism of emission trading may serve as a price incentive to force governments and businesses to develop this technology (*New Zealand Listener*, 16 August 2008). Colin Espiner, based on a report by Cawthron Institute commissioned by the New Zealand government, highlights the institute's recommendations of energy efficiency and higher investment in public transport and forcing the agricultural sector's participation into emission trading scheme at the earliest should result in considerable greenhouse gas emission reduction for New Zealand (*The Press*, 30 April 2008)

The Dominion Post editorial of 8 September, 2008 argued that emission trading scheme is “more about balancing accounting books rather than reducing New Zealand’s greenhouse gas emissions” (*The Dominion Post*, 8 September 2008, p.93). Climate change is not an issue that can be resolved overnight; it is incomprehensible why the Labour Party government wanted to rush such critical legislation. The editorial called for a measured approach that is linked to what other nations do and based on political consensus in order to set up an enduring mechanism. The editorial also blamed the opposition National Party for its lack of participation in the process. It acknowledged that the Labour Party government was well intentioned with implementing an ETS but the overall strategy appears deeply flawed because unfortunately the ETS focuses on accountancy of who pays the bill for New Zealand’s greenhouse gas emissions. This strategy is readable in discussions over what kind of assigned amount units can be used to balance the books and consideration towards a one-off payment of \$112 per household towards expected increase in power costs. The scheme will increase prices of most consumer products and damage the economy without necessarily reducing greenhouse gas emissions. New Zealand is responsible for about 0.2 per cent of the world’s emissions, the world will gain little from New Zealand’s rush, but New Zealand risks losing a lot through a flawed scheme, further stated the editorial (*The Dominion Post*, 8 September 2008, p.93). Colin Espiner claimed that only the government stands to benefit from implementing an ETS. As per the Treasury’s estimates the government may earn up to \$21 billion in the next 20 years. Based on the Treasury estimates, Espiner calls ETS “Government’s big green cash machine” (*The Press*, 17 June 2008).

Frustration of ordinary New Zealanders over imposition of a climate tax is visible in this letter to the editor from Graham Dick, a resident of Masterton:

At last a politician who says something sensible about emissions trading – in this case, National leader John Key’s call to delay it. The existing scheme is a dog’s breakfast, unlikely to be understood by more than a few of the MPs who will vote on it and not by those who will be asked to pay for it, all to make Prime Minister Helen Clark a world leader in Climate Change. New Zealand doesn’t need to suffer in order to glorify self-serving politicians. With any luck, and if he thinks about it, Mr Key will realise we don’t need the emission trading scheme. New Zealand can achieve the aims of Kyoto without it. We could take a lead from Germany and direct energy-saving initiatives to where they really work – households – by making energy saving installations tax-deductible. That’s a better option than throwing carbon credits at government owned power companies as a subsidy for building wind farms, which are a short cut to ever-increasing power charges for the consumers...(*The Dominion Post*, 21 May 2008, p.75).

This above reader of *The Dominion Post* claimed National government has done the sensible thing by delaying the scheme. But how sensible is this when human being

cannot delay the effect of climate change, in particular when the country is an island nation state like New Zealand.

Debate on the Emission Trading Scheme also generated support. *The New Zealand Herald*, in its editorial, stated that in comparison to carbon tax and fart tax earlier proposed by the New Zealand government, an emission trading scheme follows a worldwide trend. This provides business and industry with some much needed certainty and direction on carbon costing (*The New Zealand Herald*, 22 September 2007, p. 35). Brian Fallow of *The New Zealand Herald* argued in a similar tone that by ratifying the Kyoto Protocol in 2002, New Zealand took responsibility for its share of global greenhouse gas emissions. What the ETS does is devolve that responsibility from taxpayers to the firms and individuals whose decisions ultimately determine how large those emissions are. Even though to begin with, it is the tax payer who pays heavily for the scheme, it is expected polluters will be forced to pay eventually (*The New Zealand Herald*, 1 May 2008, p.58). The assumption by Fallow is short sighted, forgetting that any tax level against business, the consumer ultimate bears the cost. So the taxpayer in realty would be paying double and businesses left over the hooks.

New Zealand's large business and industry sector were in support of the government's proposal to implement an emission trading scheme. Large businesses and industry were in tune with the government's vision to establish New Zealand as the preferred destination in the Asia-Pacific region for greenhouse gas unit trading and take the first mover advantage. The government in collaboration with Air New Zealand, 42 Below, Fonterra, McKinsey, Infratil, the New Zealand Institute, the New Zealand Rugby Union, PricewaterhouseCoopers, Vector, Meridian, Contact Energy, ABN Amro, Goldman Sachs and the New Zealand Exchange formed a carbon working group that prepared a report on the feasibility of a New Zealand Carbon Market stating the importance of understanding that carbon as a commodity is actively being traded in global developed markets. The feasibility report recommended setting up a carbon market as early as possible in order to provide New Zealand businesses and industry the option of voluntary participation. The carbon working group argued in case voluntary participation is set up this will help New Zealand enterprises in developing a better understanding of how carbon trading operates and what changes each business can make to their operations in order to profit from emissions trading and reduce their greenhouse gas emissions. Mark Weldon, New Zealand Stock Exchange chief executive explained

It is a proven fact that efficient carbon markets do change emitting behaviour. Businesses and governments around the world are recognising this. New Zealand business has been relatively slow to see the realities of a commercial world where carbon credits have an on-going value, and now they can be used not only to change their emission profiles, but also for their own profits (*National Business Review*, May 1 2007, p.8).

The carbon working groups based their positions towards establishing a carbon market based on concerns of business and industry that ETS may escalate costs, reduce profits, lead to job losses, reduce economic growth and also with the view of saving New Zealand's international reputation (in light of the fact that New Zealand has ratified the Kyoto Protocol binding this country to international greenhouse gas reduction targets). Rob Fyfe, chief executive of Air New Zealand, added:

We don't believe that climate change is an issue we can ignore. New Zealand's 100 per cent pure image is critically important to our nation's future and prosperity. But New Zealand must take the opportunity to shape our market before any other country imposes it on us (*The National Business Review*, 1 May 2007, p.8).

Mark Weldon, in agreement with Rob Fyfe, added:

Fear tactics and dire predictions of cost impositions are doing nothing to prepare New Zealand businesses for the reality of the future. It's time we stopped talking about threats and started seeing the very real opportunities that carbon trading presents to our businesses, regardless of size, and our national economy (New Zealand Exchange Limited, Press Release, 2008).

David Young argued that instead of considering ETS as a mechanism that adds to business costs, businesses should consider the bright side of implementing a climate policy. Major New Zealand businesses after considerable amount of research now believe that New Zealand business can leverage their country's clean, green image and the fact that it is a signatory to the Kyoto Protocol to sell New Zealand as a regional hub in the Asia Pacific region where companies can trade greenhouse gases. Young says that it only seems sensible to explore the opportunities that climate change has to offer and calls the ETS "Green Gold" for New Zealand (*New Zealand Listener*, 21 May 2008).

It is surprising to see a favourable platform where businesses are willing to participate in the National government proposed scheme. It appeared to me as if some kind of conspiracy going on between businesses and the government to short-change New Zealanders.

It seems gains from ETS were not limited to the business community as argued above. Farmers too can gain in case New Zealand implements an emission trading scheme. The

government advised farmers that instead of continuing with dairy farming they can choose to convert their land areas in to forests. These forests can be used as carbon sinks towards greenhouse gas sequestration which will count towards New Zealand's committed reduction under Kyoto Protocol. In return, farmers will receive assigned amount units which farmers can sell to greenhouse gas emitting businesses and industries. Dr Gary Bedford from Taranaki Regional Council said that carbon farms could produce as much as \$10,000 a hectare on previously un-forested land. At a Federated Farmers seminar, Dr Bedford argued that farmers should consider the option of converting their dairy farms in to forests saying "It may be unpalatable for fourth generation family farmers, but the bottom line is that some of these farms may have more value in carbon, not animals. The smart money left Auckland a year ago when the property boom started to die, and is being invested in hill country for carbon farming" (*Taranaki Daily News*, 10 July 2008, p.14).

In letters to the editor, readers appear to be in support of New Zealand Labour Party's decision to implement an emission trading scheme. Raechel Thomas of Titirangi North writes:

John Key must be mortified. He has worked hard to sound serious about tackling climate change. Then his proposal to delay the emission trading scheme gets backing from climate sceptics and the country's biggest pollutes. It seems his self-made image of a man concerned about the planet is slip-sliding away (*The New Zealand Herald*, 21 May 2008, p.74).

Jane Nicholson from Parnell writes:

How disappointing to see the National Party pull out of the proposed emissions trading scheme. How can it say it is rushed when people have been working on it for five to six years? (*The New Zealand Herald*, 21 May 2008, p.74)

Sarah Thomson of St Marys Bay writes:

What more is John Key willing to sacrifice to keep his big-business allies happy? He is promising big tax cuts, and, by calling for a delay to the emissions trading law, is proposing to increase the tax payer subsidy to big polluters. What social services will he cut to pay for pollution credits he wants to give away? (*The New Zealand Herald*, 21 May 2008, p.74)

Lucy Hawcroft adds:

Now that National has abandoned any pretence of tackling climate change, it is time Labour gave us real choice and stood up to big-business polluters and their call for public subsidy. Only the Greens and the Maori Party seem to be taking climate change seriously (*The New Zealand Herald*, 21 May 2008, p.74).

As noted earlier, the National Party opposed the Labour Party ETS during its second reading in Parliament. However, public pressure may have forced the Party to reconsider its position. This change in the Party's position can be noted in John Key's

(National Party's Prime Ministerial candidate for the 2008 general elections) argument. At the time of the 2008 election campaign he declared that implementation of an emission trading scheme that covers all sectors of the New Zealand economy is a favourable scenario for everyone from farmers to exporters and for future generations (Oliver, 2008, p.19). In case New Zealand chooses to ignore the problem of climate change it risks damage not just to lives of the present generation but of generations to come. After winning the election Key in order to appear as a promise keeper said that the National Party would not abandon the ETS, rather the mechanism will be amended to make it more business friendly. During his speech to dairy farmers at a public meeting in Waitara, Key reiterated his government's tacit support towards addressing issues of increase in costs and reduction in profits, saying:

All of the advice that we get is that there will be a pushback from consumers internationally I don't think we would be helping you, I think in the long term we would be hurting you. If farmers accepted for just a moment that human induced climate change is happening, if the world did not play its part it might lead to catastrophic weather conditions. Who is going to bear that most? I can tell you who it is going to be. It is farmers, it might not be you, but it might be generations that you pass your farm to (*The New Zealand Herald*, 23 October 2008, p.109).

The above quote from Key represents his pro-activeness in ensuring that his friends from the farming community do not face any negative impact in case New Zealand implements a climate policy. It is due to the National Party government's close relationship with farmers, business and industry groups that the proposed Labour Party ETS was diluted to such an extent that any reduction in New Zealand's greenhouse gas emissions now stands unlikely. By not scrapping the ETS the National Party government in the eyes of the world and that of the New Zealand public have maintained that they want to take credible action against climate change. However, in reality they have killed two birds with one stone. They have managed to maintain their credibility while also ensuring that their friends in business, industry and farming community do not lose their profits.

7.7 Key themes that emerge from the research findings

Business leaders argued that emission trading scheme is a tax imposition designed to drive business and industry in to negative growth and profits. It encourages business and industry to shut shop in New Zealand and move elsewhere as competing enterprises in the global market are not subject to such a tax imposition at the moment. In case business and industry decide to move this will hurt the New Zealand economy because

people will lose jobs and the standard of living will fall. Business leaders who do not support implementation of emission trading scheme received support from intellectuals who argue that scientific evidence on climate change is inconclusive. Based on speeches by intellectual elite, business and industry claim that emission trading scheme is rushed and that further research in to the science and economics of such a critical policy that will significantly change New Zealand economy is required. This is a classical conservative theoretical ideas playing out in the business community as pointed out by (Livesey, 2006) and (Gerring, 1997). They explained conservatives support little or no change and strongly believe in individual freedom and property rights. They argue for little or no involvement of government on economic policy with minimum taxation on business and corporations.

Ethical, opponents of the emission trading scheme term the policy as corporate welfare because it transfers tax payer dollars to large scale industry and business in the form of assigned amount units that carry dollar value in national and international carbon markets. The argument put forward by ethical opponents of ETS is that the policy may theoretically achieve reduction in greenhouse gas emissions but by excluding the agricultural sector or providing it with an impractical extension before it enters the scheme negates any chance that New Zealanders' may have of achieving its Kyoto targets. This is because agriculture alone accounts for around 49 per cent of New Zealand's total greenhouse gas emissions.

From an ordinary New Zealander's point of view, the government did not try to gain consensus. The government legislation process on ETS appeared to deny large section of the public the right of making inputs into the legislation. But the government insists and argues that the option of making submission to relevant select committees allows for ordinary individuals to submit their viewpoints on any legislation. This is regardless of the fact that the process of making a submission to a select committee may be cumbersome. In considering that ordinary New Zealanders are and will pay for up to 90 per cent of the costs towards New Zealand Kyoto Protocol liability, the government should have respected the rights of their citizens. Rather, decisions on the scheme were taken after discussion with business and industry. Due to lack of a transparent process in designing the scheme ordinary New Zealanders feel that ETS is more an accounting scheme as its strategic focus is on identifying who pays the bill towards New Zealand Kyoto protocol commitment rather than a legislation that forces emitters to reduce their GHG emissions.

7.8 Conclusion

However, people supporting the scheme argue that even though initially the emission trading scheme is tax payer funded, the ultimate strategy is to ensure that polluters pay for their greenhouse gas emission or search, innovate and switch to cleaner or zero emission methods of production. Large business supports the emission trading scheme as it believes that by setting up a carbon trading policy as early as possible a flexible option is being provided to all industries and business. Those who choose to join the trading system can thus learn to trade and profits from it and in the process reduce their greenhouse gas emissions. Secondly, establishing a trading platform for carbon will give New Zealand the first mover advantage in the Asia Pacific region and allow New Zealand to establish a region wide trading hub creating jobs and economic growth. Hence the need is to recognise this “Green Gold” opportunity. Instead of creating an atmosphere where everyone is scared of a well-intentioned policy the government should setup initiatives towards educating business and industry, farmers and individuals on the opportunities presented by climate change and emission trading. Such initiatives should go a long way in ensuring that all stakeholders and the environment benefit from implementation of “beneficial for all” policies.

Chapter Eight: Conclusion and Reflections

This study set out to address the research question: what factors informed the New Zealand government's decision to implement an emissions trading scheme as New Zealand's climate policy. Emissions trading scheme is the product of many years of discussion in the international community taking in to account considerable amount of scientific debate on the impact of use of fossil fuels on the environment. The Brundtland report of 1987 urged nation states to adapt a model of 'Sustainable Development' to economic growth, a model that meets the needs of present generations without compromising the ability of future generations to meet their own needs.

The Brundtland report formed the basis of the first international treaty on climate change, the United Nation Framework Convention on Climate Change (UNFCCC), produced in 1992. The aim of the UNFCCC was to limit and lower greenhouse gas emissions. The key shortcoming of the UNFCCC was that it did not have any enforcement powers to ask member countries to reduce their emissions. The Kyoto Protocol was a great improvement on the UNFCCC because it bound 37 industrialised countries who signed the protocol towards reducing their greenhouse gas emissions by five per cent below their 1990 levels. Emissions trading scheme was one of the key mechanisms urged under the Kyoto Protocol to achieve this five per cent reduction in greenhouse gas emissions. Based on a National Interest Analysis undertaken by the New Zealand treasury that predicted New Zealand will gain from being a part of the Kyoto Protocol the New Zealand government ratified the Kyoto Protocol in 2002 and accepted its obligation of achieving five per cent reduction in greenhouse gas emissions.

Based on the recommendations under the Kyoto Protocol, the New Zealand Labour Government proposed an ETS that would cover 25 per cent of New Zealand's Kyoto Protocol greenhouse gas reduction targets in 2008. With the change of government in 2007, the National Government made significant amendments to the proposed 2008 ETS. With the amendments the new ETS would cover only 14 per cent of New Zealand's Kyoto Protocol targets. The foregoing analysis indicates that the Brundtland Commission, the UNFCCC and the Kyoto Protocol all use neo-liberal principles of trade, demand and supply, as means to achieve the aim of reducing greenhouse gas emissions. In theory, using the principles of trade, demand and supply and economic growth can lead to behavioural changes.

Critical analyses of the New Zealand ETS showed that it was modelled after the European Union ETS. There was evidence that New Zealand policymakers drew lessons from the EU ETS the oldest emissions trading mechanism, considered to have achieved some measure of success. However, a number of assessment reports from the European Commission itself, as well as reports from a number of scholars, highlighted a number of constraints that limits the EUETS from achieving its target reduction of greenhouse gases while placing considerable burden on the European Union tax payer. For example, free allocation of assigned amount units (AAUs) to enterprises by the European Commission to incentivise enterprises towards reducing their greenhouse gas emissions and encourage investment in clean and renewal energy sources was considered to be one of the principal reasons why the European ETS has not been a successful instrument in reducing greenhouse gas emissions. This is because while free allocation of AAUs to enterprises has led to windfall profits for most polluters, reduction in greenhouse gas emissions has not matched the expected levels (Skjaeserth & Wettestad, 2008). Furthermore, the mechanism's inability to stimulate investment for research and development as highlighted by Hepburn (2007) is also a cause of concern. Some of the key issues raised in the debates leading to the introduction of New Zealand ETS also revolved around the tax burden on New Zealanders in the implementation of the scheme.

To help understand public perceptions of ETS as New Zealand's climate policy and reasons that underpinned the New Zealand government decision to implement an ETS as New Zealand's climate policy, the research undertook a critical analysis of reports and opinion pieces from a range of publications. Thirty seven articles from national and regional newspapers, business and current affairs magazines were analysed. The idea underpinning the analysis was to understand the ideology which informed the writers and their arguments. A large percentage of the articles analysed opposed the ETS, for reasons ranging from suggestions that it will lead to rise in operating costs, job losses, less economic growth and thus less profit. Another argument is that the scheme is more of an accounting mechanism than an instrument that will achieve any real reduction in New Zealand's greenhouse gas emissions.

Surprisingly, many of the large business corporations and industry supported the ETS and urged enterprises to embrace it. In fact, some of New Zealand's largest companies collaborated with the government to setup Terminal Zone 1, Asia Pacific region first carbon trading market, arguing that setting up Terminal Zone 1 provides New Zealand

with a unique opportunity in the Asia Pacific region to attract companies from across the region towards trading carbon credits. It was suggested that this should also have a positive effect of attracting investment in New Zealand's capital markets thus fuelling economic growth.

Thematic analysis of the data after grouping these under relevant themes clearly showed that the most dominant ideology that shaped the discussion and implementation of the ETS policy in New Zealand was neo-liberalism. David Harvey (2007) and Livesey (2006) point out that neo-liberal ideology seeks government intervention only to the point where the government facilitates the creation of new markets through policies and ideas. They further explain that neo-liberalism is a political and economic practice that proposes human well-being can be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices (Harvey, 2007, p. 2). The ETS policy conforms with both points of the argument raised by Harvey (2007) and Livesey (2006) because in implementing an ETS government intervened. However, the intervention was only to the point where it opened up markets for businesses to trade units which have been given equivalent value of private property. The ETS simply provides the institutional framework for regulating the new market.

Based on the key themes derived from the analysis of the 37 articles across the range of publications, the simple answer to the research question: what factors informed the New Zealand government's decision to implement an emission trading scheme as its climate policy would be national economic interest in sectors such as tourism, agriculture and the dairy sector, environmental considerations, and preservation of New Zealand's international relations/reputation.

8.1 Reflections

Despite the number of shortcomings in the New Zealand ETS the fact that New Zealand, a small isolated island nation state in the South-West Pacific region, has a climate policy in place is reason to believe that there is hope that the political, business and industry leaders can reach consensus on implementing a nationwide climate policy. Australia has tried multiple times without success to implement a climate policy. The Australian political leadership has had major difficulty in implementing a climate policy

due to strong opposition from the Australian mining and industrial lobbies (Bailey, Compston & MacGill, 2011; Suter, 2010)

New Zealand implementing a climate policy is a positive step. However, seeking opinions of ordinary New Zealanders on what shape and form the climate policy should take would have resulted in a more comprehensive policy, acceptable to a majority of New Zealanders. The current perception is that previous governments both the Labour Party and National Party limited consultations to only small but influential sections of the society mainly, business and industry. This led to the perception that government was in effect using ordinary New Zealanders' taxes to fund profits for business and industry.

There is a strong need for all political parties to work collaboratively and for on-going public consultations to integrate a policy framework that will ensure that New Zealand achieves significant reduction in its greenhouse gas emissions as the ETS is reviewed and improved over the next five to ten years.

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