The Status of New Zealand’s Emissions Trading Scheme

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Introduction

New Zealand currently ranks twelfth worldwide in per capita greenhouse gas emissions, although they only make up 0.1% of total global emissions (Moyes, 2008). The country’s strong commitment to carbon dioxide reduction thus seems to serve as more of a political symbol than a program that will significantly mitigate climate change. Emissions continue to increase, and even if New Zealand achieved a reduction, the effect would be fairly minimal in reducing carbon dioxide’s worldwide levels. Regardless, the nation’s desire for environmental awareness and activism largely stems from its heavy reliance on agriculture coupled with its powerful ecotourism industry. By proactively addressing climate change, New Zealand expects to witness both environmental and economic co-benefits including improved water quality, reduced rates of soil erosion, and greater energy efficiency (Moyes, 2008).

In order to meet the international standards set by the Kyoto Protocol and the UNFCCC, in 2008 New Zealand created its Emissions Trading Scheme (ETS) with the intention of reducing emissions to below 1990 levels (Emissions Trading Scheme Basics, 2014). However, despite its ETS adoption, New Zealand’s greenhouse gas emissions have continued increasing. This growth has ultimately made it more difficult for the
country to meet their Kyoto Protocol objectives, targets meant to govern the nation’s cap and trade system.

New Zealand’s ETS differs critically from the schemes adopted by many other countries also adhering to the Kyoto Protocol, a divergence that has played a significant role in furthering the country’s challenges of meeting its emissions reduction target. Firstly, New Zealand is notable in its inclusion of all major greenhouse gases for regulation beneath their ETS, particularly from those sectors responsible for the highest levels of emissions. Secondly, the country, at least initially, included their forestry and agriculture sectors for ETS regulation. Thirdly, New Zealand’s ETS differs from that of other countries in its continued allowed import of emissions units from the international trading market. Therefore, as long as units can be purchased and imported, there is no limit to the country’s potential greenhouse gas emission output. Furthermore, the value of emissions units within New Zealand can be depreciated by the prevalence of these foreign units (Clock is Ticking for Cheap Credits, 2014). The danger of incorporating this final factor is that, if the international market prices increase, New Zealand’s ETS participants could be forced to pay higher prices for their carbon units (Moyes, 2008).

The aspects of New Zealand’s program under the Kyoto Protocol, as well as several others, will be analyzed to determine their success in reducing New Zealand’s greenhouse gas emissions since the nation’s commitment and subsequent creation of the ETS program in 2008. This study will delve into the history that led up to the implementation of the country’s ETS, explain the program’s set requirements and methods of enforcement, as well as discuss the influence that New Zealand’s ETS has had on the country since adoption. Additionally, there will be further discussion of the
characteristics that make New Zealand’s ETS unique, how efficacious the scheme has proven to be, and the challenges that will arise as they attempt to reduce GHG emissions and serve as an international player in combatting climate change. Despite New Zealand’s efforts to increase environmental activism and awareness, which served as the catalyst for the ETS’s creation, when taking into consideration the lack of the program’s success thus far, as well as anticipating the challenges that the coming decades will bring, the country will likely fail to meet its ambitious 2020 goal.

An Introduction to the Emissions Trading Scheme

Fundamentally, an ETS is a market-based tool intended to incentivize participants to curb their GHG emissions in a cost-effective manner by putting a price on emissions. Within each scheme, permits referred to as “emissions units” function as a tradable currency for emissions, through which polluters can virtually “pay” for their pollution. Governments or regulators generally issue these units, and each unit then permits the holder to produce a certain proportion of emissions. Emissions reductions can be achieved by either diminishing GHG output or purchasing credits from domestic or international markets (Moyes, 2008).

A cap and trade method is one of the most common forms of an ETS. The total number of units should theoretically be equivalent to the cap each country sets, and therefore total GHG emissions should be curbed. The mentality behind the program is that ETS participants will strive to reduce their emissions until the cost of reduction is greater than the cost of purchasing emissions units. Subsequently, the members who are able to decrease emissions at a lower cost than purchasing units will physically reduce
their GHG output instead, and then sell whatever excess units they own to other participants (Moyes, 2008).

New Zealand’s Initial ETS Framework

Members of New Zealand’s ETS must meet two core requirements: 1) Each participant must record and file reports on their state of compliance and current GHG levels; 2) Each participant must surrender a number of emissions units equivalent to their emissions output by the end of each compliance period. The ETS initially adopted by New Zealand was revolutionarily broad, covering all GHGs released by the predominant sectors of the economy. These sectors include: Forestry, Liquid Fossil Fuels, Stationary Energy, Industrial Process Emissions, Agriculture, and Waste. This list was later altered by the exclusion of the forestry and agriculture sectors due to economic and regulatory complications, which will be discussed in further detail later in this study. Although no other nation created a program that adhered to such broad coverage, New Zealand’s ETS originally included a regulation of all of the world’s six dominant GHGs. Their wide-ranging management is important, because each sector is responsible for emitting a different level of each gas. Therefore, in order to form a comprehensive ETS program, a larger range of sectors must be monitored despite higher costs to the local economy. New Zealand’s ETS permitted voluntary participation, promoting the belief that industries would enroll for the economic opportunities and potential investments found within the emissions market (Moyes, 2008).

New Zealand Units (NZUs) are the domestic emissions credit unit issued by the government to the New Zealand Emission Unit Registry. These units are allocated to eligible participants within specific sectors (forestry predominantly), or they are sold, and
then remain within circulation in New Zealand’s market. Not all economic sectors of New Zealand are guaranteed units, and instead would need to directly purchase NZUs from the government. Credits are, however, granted to those sectors deemed to be trade-exposed, and the agriculture forestry sector. These “trade-exposed” industries are those companies that will have higher costs imposed upon their consumers to meet GHG cutbacks (Emissions Scheme A Real Stinker, 2014). Consequently, allocation will be equivalent to 90% of 2005 emission levels for the agriculture sector, with these allocations subject to a gradual withdrawal from 2019 to 2030 (Moyes, 2008).

**Unique Characteristics of New Zealand’s ETS**

*The First Commitment Period*

New Zealand is a member of the United Nations Framework Convention on Climate Change (UNFCCC) and was an adherent to the Kyoto Protocol until 2008. New Zealand initially agreed to adhere to the targets set by this international agreement within the first commitment period, which spanned from 2008 to 2012. During this time, the nation pledged to limit their net GHG emissions to five times the gross volume of GHGs in 1990. Despite this, the country’s GHG levels have been growing as a result of increase in both fossil fuel combustion and emissions from the agriculture sector (Moyes, 2008).

The nation faces additional complications in achieving ETS objectives because of complicating circumstances. Their renewables market has already experienced a heavy investment and development in recent decades, leaving little room for further growth and its subsequent reduction of carbon dioxide output. Many of the nation’s products are required to meet minimum energy performance standards (MEPS), which promote low-energy products and raise consumer awareness. Another energy-saving tactic, New
Zealand passed Energy Efficiency Regulations legislation in 2002, mandating that companies meet MEPS and publicize and label their energy ratings (EECA, 2015). Therefore, industries already adhere to high-energy efficiency standards, and technological innovation does not see a significant increase of standards possible in the near future. Lastly, although agricultural and livestock emissions have proven to make up a significant proportion of the country’s emissions, no theories for curbing these outputs have currently been proposed (Moyes, 2008). Without significantly diminishing livestock populations or agricultural exports, the country has been unable to determine a method for targeting the GHGs of these sectors without notable harm to the economy.

The Second Commitment Period

The Kyoto Protocol’s second commitment period ranges from 2013 to 2020. In 2012, instead of pledging to meet objectives within this second timeframe, New Zealand’s government made climate pledges beneath the UNFCCC framework. For the second commitment period of the Kyoto Protocol, the nation’s goal is predicted to be overshot by 33%. By applying temporary credits from the “Kyoto forests,” the nation would be able to decrease this discrepancy to 15%. In order to cover the additional 15%, participants in the ETS have requested permission to use international credit units from the first commitment period. However, these credits would mostly be the “environmentally questionable” ERUs (Terry, 2014). As these cheap ERUs originate from Ukraine and Russia, they can allow for inexpensive GHG emissions (Govt Reaps What It Sows, 2015). Also, the validity of these ERUs has come into question, as their prices are not regulated beneath the Kyoto Protocol’s Clean Development Commission (Emissions Scheme A Real Stinker, 2014).
The Third Commitment Period

The third commitment period of the Kyoto Protocol, which will run from 2021-2030, is projected to show New Zealand emitting at a level 55% above its current target. This level is equivalent to an extra 350 million tons of carbon dioxide. As a result, New Zealand might have to pay $30 billion to square off these carbon credits. It is believed that the country’s best chance to mitigate some of this large cost is to adopt an emissions reduction strategy in its agricultural sector, as well as with reforestation (Terry, 2014).

The Current State of New Zealand’s ETS

New Zealand’s ETS currently has a target of achieving emission levels 10-20% below its 1990 levels by 2020. However, this goal does not appear to be on track for completion within the next five years when considering the shortcomings of the ETS’s success thus far, coupled with the challenges to come in the following years. New Zealand’s Climate Change Issues Minister, Tim Groser, recently stated his opinion that it was not New Zealand’s place to serve as a world leader in climate change mitigation and international agreements. He claimed that placing ambitious goals for mitigation should not solely be put upon developed countries, as it avoids politically pressuring those countries that are the world’s top emitters. According to Minister Groser, the nation’s role should manifest itself in international negotiations that could result in mutually determined targets between countries (Morton, 2014). Climate Change Issues Minister Groser is a member of New Zealand’s National Party (see Index), which also includes New Zealand’s Prime Minister, John Key (National, 2015).

In 2012, Minister Groser also claimed that the adoption of the Climate Change Response Amendment Bill would provide economic assistance that would ultimately
prevent New Zealand’s ETS participants from shouldering the high costs of the program. This bill, which passed in 2012, is an amendment to the Climate Change Response Act of 2002, which was itself an amendment to the ETS. According to Groser, the Amendment Bill will find a balance between improving the ETS and ensuring that it does not unfairly impact New Zealand’s ETS participants. These changes are all intended to prevent the scheme’s expenses from increasing beyond current levels, with particular care given to the forestry and agriculture sectors (Groser, 2012).

**Challenges to the Agriculture and Forestry Sectors of New Zealand**

As of the 2012 Amendment Bill, agricultural emissions are no longer subject to regulation by New Zealand’s ETS, although this decision has recently suffered from public criticism. The explanation given behind this change was that no other country in the world puts a price on agricultural emissions, as well as that “there are no economically viable and practical technologies for farmers to reduce their emissions,” (2012 Amendments to the New Zealand ETS, 2012). The New Zealand government also justifies the removal of agricultural emissions by drawing attention to the costs that farmers already face as a result of the ETS’ inclusion of stationary energy, liquid fuels, and industrial processes. As the goal of the Amendment Bill was to protect citizens from the program’s high costs, removing agricultural emissions served to further safeguard New Zealand’s farmers (2012 Amendments to the New Zealand ETS, 2012). However, proponents against the inclusion of agriculture claim that the exclusion is necessary, as farms and their crops are already suffering the effects of climate change. Arising from these conflicting opinions on the agricultural sector, two projects are consequently being adopted in relation to the ETS. Firstly, a technical review of the ETS by the New Zealand
government will be conducted to review its efficacy and current techniques. Secondly, another study will take place to determine the emissions reductions target that should be adopted by the nation as of 2030. The last review of the ETS was held five years ago, and only served to emphasize whether or not agriculture should fall under the regulation of an ETS. The findings from this next review will be used to determine New Zealand’s objective commitment in the next international climate agreement (*NZ Ducking the Climate Question*, 2014).

The Ministry for Primary Industries recently conducted an annual survey to gauge the tree planting trends in New Zealand. The survey’s findings revealed a 6% decrease in planting since 2013, and a 30% decrease since 2012. As reforestation has been identified as one of the most promising means for reducing carbon emissions, this trend proves problematic. The nation’s gross emissions for 2020 are hypothesized to reach levels that are 25% above the 1990 levels. This contrasts greatly with the goal of achieving levels of 5% of 1990 levels on average from 2013-2020. This disparity was previously overcome through the submission of cheap international carbon credits, as well as those given prematurely by the Kyoto Protocol for the country’s forests. These “Kyoto Forest” credits refer to units that were previously distributed to claim credit for the removal of carbon dioxide by trees planted after 1989 on land that had not been forested. The problem, however, is that once these trees are harvested, these allocated credits will officially be considered “emitted.”

While these forests have been growing since the 1980s, their function as a buffer for participants has allowed for the now-evident emission overshoot. Although afforestation was prevalent in the 1990s, the 2020s will be the decade that sees these
forests ready for harvesting, transforming the carbon sinks into carbon sources. New Zealand was expected to raise their ETS objectives for the 2020s in the upcoming climate conference to be held in Paris in December of 2015, but the loss of these carbon sinks only compounds the challenge of setting such an ambitious target.

Sector Conflicts with Carbon Credits

In 2014, roughly 99.5% of the carbon credits surrendered to the New Zealand government were deemed to be “cheaply” imported units, with approximately 90% of these units being the Emissions Reduction Units (ERUs) produced by the Kyoto Protocol. The issue is that while ERU submission is limited in Europe, New Zealand places no cap upon their use. As a result, these “cheap” ERUs have begun overwhelming domestic NZUs. This has in turn allowed participants, like those in the forestry or trade-exposed industrial sectors, to save their allocation of the 100 million NZUs distributed by the government for future obligations or trading. The carbon market has consequently become inflated, which has led to the exclusion of New Zealand from the international carbon market in 2015. Therefore, after 2014, participants will no longer be able to submit their Kyoto Protocol units to satisfy emissions obligations (Clock is Ticking for Cheap Credits, 2014).

The circumstances leading up to this market inflation predominantly began in 2012, as there was an increase of 18.4 million emissions units submitted to the New Zealand government from 2012 to 2013. Of these emission units, 94% were surrendered from the forestry sector, a statistic that is at least partially the result of deforestation rates. Cumulatively in 2013 there were 45.5 million carbon units submitted (Clock is Ticking for Cheap Credits, 2014).
The purchase of international carbon credits could hypothetically reduce the extent of New Zealand’s overshoot, but the looming restrictions on the submission of international credits effectively limits this option. An alternative means for reducing carbon dioxide emissions could be the expansion of the nation’s forest coverage, creating a larger carbon sink while concurrently reducing a carbon source. However, the forestry sector has seen decreasing planting rates since 2011. Seedling sales have fallen from an average of 70 million from 2011-2012 to 54 million in 2013 and 51 million in 2014. These changes occurred analogously with a change in carbon pricing. All international carbon units were permitted for submission by the New Zealand government prior to 2013, which led to the aforementioned drop in the usage and cheapening of NZUs for ETS participant obligations. These cheap credits were particularly harmful to the forestry sector, because NZUs had been allocated to forest owners by the national government. As international units allowed NZUs to virtually be crowded out of the carbon market, each participating sector of the ETS could submit nearly limitless credits, rendering the benefits of federally granted NZUs meaningless (Fallow, 2015).

ERUs, originating from the Ukraine and Russia predominantly, are the credits largely responsible for the market’s overflow. These units can be purchased at a fraction of the cost of NZUs. Consequently, there were instances of arbitrage in the carbon market as New Zealand ETS participants could register for the New Zealand ETS, gather NZUs, and then leave the scheme after submitting the necessary ERUs, profiting from the price differential between the two units. After profiting, participants could then re-register into New Zealand’s ETS and repeat the process.
The nation’s legislation only requires forestry sector participants that owned forests planted post-1989 to submit NZUs alone when de-registering, while other sectors and industrial groups could continue submitting ERUs. Due to the looming exclusion of NZUs from the international carbon market however, ERUs from any participant will only be deemed valid until May (Fallow, 2015).

Looking Forward: The Future of New Zealand’s ETS Program

In 2014, many countries, including the United States and China, reaffirmed their future plans for reducing net GHG emissions in anticipation of the international negotiations that occurred in Lima early December of 2014 (NZ Ducking the Climate Question, 2014). As these negotiations approached, many eyes turned toward New Zealand’s government, as people questioned what would be the country’s next strategic move, and asked whether the country was “ducking the climate change question” (NZ Ducking the Climate Question, 2014). The New Zealand government will face two large decisions in the coming years. Firstly, after 2020, what kind of commitment will the nation agree to in the pursuit of mitigating carbon dioxide emissions and addressing climate change? Secondly, what methods will the nation adopt to achieve their target?

Tim Groser, the Minister for Climate Change Issues, has stated that, “The current settings and weak price signal neither incentivize behavior change nor prepare us for a transition to rising future carbon prices,” (NZ Ducking the Climate Question, 2014). Furthermore, the New Zealand Treasury has released estimates claiming that if the nation does not improve from its current state of emission rates by 2020, that decade will witness an emissions overshoot of 300 million tons above the national target. Consequently, the government will need to decide whether or not it is time for the full
inclusion of the agricultural sector into the ETS. Although gases from this sector, particularly methane and nitrous oxide, are collectively responsible for half of the country’s GHGs, they have been excluded from ETS regulation. The challenge, however, is that the inclusion of these gases would result in an increased cost to both taxpayers and energy consumers.

New Zealand’s ETS is due for review in 2015, and this year will yield decisions in agricultural exemption, the allocation of carbon units to trade-exposed industries, and the future emissions objective that the country will adopt. The ETS review and the subsequent decisions reached by the government and policymakers will demonstrate how ambitious and truly invested New Zealand is in the pursuit of an ETS program, the mitigation of climate change, and how high they are willing to see the prices of carbon units rise (NZ Ducking the Climate Question, 2014).

While New Zealand does not seem to be on track to achieve its goal of emission levels 10-20% below its 1990 levels by 2020, the country’s efforts in creating the ETS program should not be consequentially downplayed. Unlike its neighbor, Australia, whose emission reduction program collapsed, New Zealand has managed to implement a program that has been sustained since its enactment. Many environmental and business leaders considered Australia’s climate policy to be a “solid” plan due to Australia’s carbon tax as well as its own ETS (Gonzalez, 2015). However, when the country removed its carbon tax in 2014, these leaders concluded that Australia’s progress in contributing to an international solution to the climate challenge had been reversed (Gonzalez, 2015). As a result of New Zealand’s strong passion for environmental
awareness and activism, we look to see how the country will pursue decreasing its greenhouse gas emissions in upcoming years.

**An Index of New Zealand’s Political Party Views Regarding the ETS**

*The following are listed in decreasing order of the # of Members of Parliament each currently holds*

**National Party**

The National Party is currently advocating for an unconditional target of 5% GHG emissions below 1990 levels by 2020, as well as a target range of a 10-20% reduction by 2020 if a comprehensive global agreement is reached. Additionally, the party would advocate for a 50% emission reduction below 1990 levels by 2050. These objectives would be achieved through a diversified application of foreign emissions reduction units, domestic emissions reductions, and the increase of carbon sequestration into forests. The National Party would choose to maintain the New Zealand ETS.

**Labour Party**

The Labour Party wants the adoption of more ambitious climate change objectives, including the strengthening of the New Zealand ETS by restricting the submission of cheap international units.

**Green Party**

The Green Party wants to achieve carbon-neutrality by 2050 through the creation of a Climate Commission that would advise and assist the government in matters of carbon prices and budgets. Additionally, the New Zealand ETS would be gradually phased out after placing a definitive $25 per ton of carbon dioxide equivalent emissions for all sectors besides the agricultural sector, with cheaper prices for both dairy and forestry sectors.
New Zealand First Party

The New Zealand First Party opposed the New Zealand ETS on the grounds that it has failed to produce significant reductions in carbon emissions. Instead, this party promotes “net metering” and the creation of a formal planning process to pursue research, develop strategies, and feasible reduction targets.

ACT Party

The ACT Party wants to abolish the New Zealand ETS, but has not suggested alternatives due to concerns over the fragility of the country’s economy and the insignificance of the country’s emissions worldwide.

MANA Party

Wants to see New Zealand achieve carbon neutrality by 2050 through the creation of a Climate Commission and the repeal of the New Zealand ETS. The ETS would be substituted by a variety of policies that would still reduce carbon emissions “justly” while limiting the employment of cheap foreign carbon credits.

United Future Party

The United Future Party believes research must be conducted on the minimum carbon price that must be employed to ensure the ETS achieves significant emissions reductions. Would work towards achieving emissions goals by increasing the potential of carbon sinks like river and stream banks, coupled with the reduction of erosion and agricultural runoff.


