

# Commitment Issues: A Critical Analysis of New Zealand's Emissions Trading Scheme

Samuel P Leonard\*

*Climate change is a “wicked” problem with far-reaching and potentially catastrophic effects. Recognising the anthropogenic component to climate change, governments around the world have agreed multilaterally to reduce carbon emissions. New Zealand’s commitment to this global effort began in September 2008 with the New Zealand Emissions Trading Scheme (NZ ETS). The NZ ETS was designed with the dual purpose of meeting New Zealand’s international commitments under the United Nations Framework Convention on Climate Change and of serving as the Government’s primary response to climate change. The NZ ETS is the chosen vehicle to drive New Zealand’s greenhouse gas (GHG) emissions reductions by incentivising the country’s major emitters to cut their emissions. Subsequent amendments to the NZ ETS in 2009 and 2012, however, have gutted the effectiveness of the scheme. There is currently little or no incentive for New Zealand’s major emitters to reduce emissions in order to meet NZ ETS obligations. The agricultural sector of New Zealand is responsible for approximately half the country’s total GHG emissions but has been indefinitely excluded from the NZ ETS. This exclusion, combined with*

\*BSc/LLB, Victoria University of Wellington. This article has been adapted from a paper submitted for the Climate Change Law course (LAWENVIR 723) at The University of Auckland in 2014 as part of ongoing postgraduate study in Environmental Management. The author would like to acknowledge Professor Christina Voigt for her inspirational lectures and Alister Barry and Abi King-Jones, directors of the film *Hot Air* which piqued his awareness of the political struggles of climate change reform in New Zealand. Their film can be viewed on Alister’s YouTube page <<https://www.youtube.com/watch?v=IGf4maDU7Ps>>. Email contact: sp.leonard@outlook.com.

*a free allocation of New Zealand emissions units for other emissions-intensive industries, means the scope for actual GHG emissions reduction incentives is very limited. This is especially so given that the NZ ETS is heavily dependent on offsets to meet reduction obligations and as a result any actual reductions are mostly negligible. The NZ ETS is also schizophrenic in nature, combining aspects of both a cap-and-trade scheme and a carbon tax. This lack of distinction hinders the efficiency of the scheme which would function better as one or the other. The decision of the Government not to participate in the second Kyoto commitment period and loss of access to Kyoto markets means that the NZ ETS has a very uncertain future. It is stuck in a perpetual transitional phase which is unlikely to change unless New Zealand has renewed legally binding emissions reductions targets, negotiated under a new international climate agreement.*

## 1. INTRODUCTION

Global warming is unequivocal.<sup>1</sup> It is a “wicked” problem with widespread and potentially catastrophic effects. The risks from climate change include but are not limited to: an increase in severe weather events; ocean acidification; food security; water availability; biodiversity loss; habitat loss; population displacement; poverty; and economic loss.<sup>2</sup> The effects of climate change will not be evenly distributed and depend on a number of factors such as the vulnerability, resilience and adaptive capacity of peoples and ecosystems.<sup>3</sup> It is extremely likely that anthropogenic greenhouse gas (GHG) emissions have been the dominant cause of rising temperatures since the mid-20th century.<sup>4</sup> The global nature of climate change makes it one that is particularly hard to govern. GHG emissions are not bound by state boundaries and no single state

1 Rajendra Pachauri and others (eds) *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC, Geneva, 2014) at 1.1.

2 At 2.3.

3 See, for a collection of scholarly articles on the interaction between resilience, vulnerability and adaptation in relation to climate change, Neil Adger and others (eds) “Resilience, Vulnerability, and Adaptation: A Cross-Cutting Theme of the International Human Dimensions Programme on Global Environmental Change” (2006) 16(3) *Global Environmental Change* 268.

4 Adger and others, above n 3, at 1.2.

can tackle climate change on its own. Each country must do its part in order to successfully curb emissions and minimise the threats posed by climate change.

As a signatory to both the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol to that agreement, New Zealand was legally obligated to implement measures to reduce GHG emissions and participate in the Kyoto market trading mechanisms.<sup>5</sup> These obligations resulted in the enactment of the New Zealand Emissions Trading Scheme (NZ ETS) by the Labour-led Government in September 2008.<sup>6</sup> The NZ ETS was introduced not only to meet international obligations but also as the Government's primary domestic response to the global climate change problem.<sup>7</sup> In theory the NZ ETS incentivises emissions reductions and encourages activities that absorb carbon dioxide from the atmosphere by putting a price on GHG emissions. Very shortly after the NZ ETS came into force there was a change to a centre-right, National-led Government following the 2008 general election. The newly elected Government was committed to maintaining the NZ ETS but immediately set up a select review committee to audit the scheme.<sup>8</sup> This resulted in a rapid amendment to the NZ ETS in 2009.<sup>9</sup> The 2009 amendment adopted transitional measures that were aimed at reducing the financial burden of implementation costs on mandatory participants within the scheme. These transitional measures, many of which were later extended indefinitely by the 2012 amendment, greatly reduced the effectiveness of the NZ ETS as an incentive-based emissions reductions scheme.

In its current state the NZ ETS does not place any incentives on agriculture — New Zealand's largest GHG-emitting sector. It allocates free allotments of New Zealand emissions units (NZUs) to other emissions-intensive industries, offers a "one for two" surrender deal, and sets a fixed-price option that caps the maximum price on NZUs. In effect, the NZ ETS is disadvantaging some sectors while privileging others.

If the current NZ ETS policy is continued, any actual emissions reductions from New Zealand's major emitting sectors are likely to be negligible for the foreseeable future.<sup>10</sup> The operation of the NZ ETS has relied heavily on the

5 Kyoto Protocol to the United Nations Framework Convention on Climate Change (opened for signature 16 March 1998, entered into force 16 February 2005), art 3.

6 Climate Change Response (Emissions Trading) Amendment Act 2008.

7 Ministry for the Environment "The NZ Emissions Trading Scheme" (19 April 2013) Climate Change Information New Zealand <<http://www.climatechange.govt.nz/>>.

8 Committee Secretariat for Emissions Trading Scheme Review "Review of the Emissions Trading Scheme and related matters" (August 2009) NZ Parliament <<http://www.parliament.nz/>> at 12.

9 Climate Change Response (Moderated Emissions Trading) Amendment Act 2009.

10 Jessika Luth Richter and Lizzie Chambers "Reflections and Outlook for the New Zealand ETS: must uncertain times mean uncertain measures? (2014) 10(2) Policy Quarterly 57 at 62.

offsets generated from carbon forests to meet targets and obligations.<sup>11</sup> This heavy reliance on forestry is effective for achieving short-term goals but conceals an inadequacy of real emissions reductions. Offsets achieved through afforestation or the avoidance of deforestation can ultimately be undone if and when those forests are harvested in the future.<sup>12</sup> Adding to the inefficiency of the NZ ETS is that in essence it fits neither the characteristics of a cap-and-trade scheme nor a conventional carbon tax. If the NZ ETS was designed to act as one or the other, instead of a combination of both, then the facilitation of reductions would become much more transparent.<sup>13</sup>

From what began as an enterprising piece of legislation in 2008 the future of the NZ ETS is very uncertain. New Zealand did not sign on to the second commitment period of the Kyoto Protocol and as such has no internationally legally binding emissions reduction targets. New Zealand instead chose to make a general emissions reduction target for the same period under the more general auspices of the UNFCCC. By not participating in the second Kyoto commitment period New Zealand has effectively excluded itself from participating in the Kyoto market mechanisms. This means that going forward the NZ ETS will have to operate in isolation from the international scheme with which it was designed to be linked. This is of significant concern as it is mostly through the Kyoto flexibility mechanisms that New Zealand can meet its obligations under the first commitment period.<sup>14</sup>

Any future amendments to the NZ ETS will probably be on hold as New Zealand, along with the rest of the world, awaits the outcome of the United Nations Climate Change Conference in Paris 2015. It is expected that a second globally inclusive climate change agreement will be reached and will enter into force following the completion of the second Kyoto commitment period which expires in 2020.<sup>15</sup> In the meantime the NZ ETS is likely to remain stuck in a perpetual transition phase that renders the scheme ineffective in terms of incentivising actual emissions reductions.

11 Geoff Bertram and Simon Terry *The Carbon Challenge* (Bridget Williams Books Ltd, Wellington, 2010) at 5.2.

12 At 5.2.

13 At 4.2.1.

14 Ministry for the Environment "Latest update on New Zealand's net position" (21 November 2014) <<http://www.mfe.govt.nz/>>.

15 European Commission "The 2015 international agreement" (11 December 2012) <<http://ec.europa.eu/>>.

## **2. UNFCCC AND THE KYOTO PROTOCOL**

The UNFCCC, adopted in 1992 and in force since 21 March 1994, is a legally binding international climate agreement. The ultimate objective of the Convention is to stabilise GHG emissions at “a level that would prevent dangerous anthropogenic interference with the climate system” but to do so within a timeframe that will “allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner”.<sup>16</sup> The UNFCCC requires member states to: develop GHG inventories; formulate and implement national and regional strategies for GHG emissions mitigation; promote sustainable management and conservation of GHG sinks and reservoirs; cooperate in adaptation plans; and participate in the education and exchange of relevant scientific, technological, socio-economic and legal information related to the climate system.<sup>17</sup>

Industrialised countries that are Annex I parties to the agreement are obligated to “take the lead” on emissions reductions as part of shouldering a heavier burden under the Convention’s principle of common but differentiated responsibilities.<sup>18</sup> As such these states are required to adopt national policies that take measures to mitigate climate change by limiting GHG emissions.<sup>19</sup> The UNFCCC does not itself set any actual limitations but provides for protocols to the Convention to be adopted by the Conference of the Parties (COP) at any regular session.<sup>20</sup> The Kyoto Protocol, adopted in 1997 at the third COP and in force since 16 February 2005, sets quantified emissions limitation and reduction obligations (QELRO) for Annex I parties. Where the UNFCCC only encourages parties to stabilise GHG emissions, the Kyoto Protocol commits them to doing so. The Protocol set an overall emissions reduction target for Annex I parties of 5 per cent below 1990 levels for a first commitment period from 2008 to 2012.<sup>21</sup>

Climate change is a global collective action problem; most GHGs mix and accumulate in the atmosphere over time, meaning that the source or location of emissions reductions is climatically irrelevant so long as the aggregate or net removal is positive.<sup>22</sup> This means that as long as a shared or collective

16 United Nations Framework Convention on Climate Change (opened for signature 4 June 1992, entered into force 21 March 1994) [UNFCCC], art 2.

17 Article 4.1.

18 Article 3.1.

19 Article 4.2.

20 Article 17.

21 Kyoto Protocol, art 3.1.

22 IPCC “Climate Change 2014 Synthesis Report Summary for Policymakers” (2014) <<http://www.ipcc.ch>> at SPM 2.4.

emissions reduction target is reached then the goals of the UNFCCC can be achieved irrespective of how much individual parties contribute.

In order to achieve this collective goal each of the Annex I countries (and the European Community) that have ratified the Protocol were given legally binding QELRO targets known as “assigned amounts” contained in Annex B to the Protocol. Parties are not permitted to exceed their assigned amounts, and while the first commitment period has ended, they have until the completion of the “true up” period in November 2015 to settle accounts and ensure targets have been met.<sup>23</sup> To enable states to meet these goals the Kyoto Protocol has three flexibility mechanisms: Emissions Trading; the Clean Development Mechanism (CDM); and Joint Implementation (JI).

## 2.1 Emissions Trading

The Emissions Trading framework establishes a cap-and-trade system using assigned amounts. These are calculated into equivalent assigned amount units (AAUs) which can be traded between parties.<sup>24</sup> Each AAU, otherwise known as a Kyoto unit, represents an allowance to emit 1 metric tonne of CO<sub>2</sub> equivalent GHG. The Kyoto Protocol covers six GHGs (carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF<sub>6</sub>)) which are measured in terms of their global warming potential and converted into CO<sub>2</sub> equivalent emissions.<sup>25</sup> New Zealand’s QELRO target was set at 100 per cent of 1990 levels meaning that New Zealand was not committed to a reduction from 1990 levels but to a return to 1990 levels for the period of 2008 to 2012.<sup>26</sup> This resulted in an allocation of 309,564,733 AAUs for New Zealand. These units are registered with the New Zealand Emission Unit Register (NZ EUR) and can be traded with other Annex I members under the supervision of the UNFCCC’s central registry: the International Transaction Log.

The International Transaction Log verifies transactions and ensures that the rules of the Kyoto Protocol are not breached. For instance, a member state is not permitted to trade away any units if it would cause the number of Kyoto units in the national registry to drop below the Commitment Period Reserve.<sup>27</sup> The

23 UNFCCC “Kyoto Protocol reference manual on accounting of emissions and assigned amount” (2008) <<http://unfccc.int/>> at 3.3.

24 Kyoto Protocol, art 17.

25 Annex A. Different greenhouse gases have different warming potentials such as methane which has more than 20 times the effect of carbon dioxide on a pound for pound basis over a 100-year timeframe. United States Environmental Protection Agency “Overview of Greenhouse Gases” (2014) US EPA <<http://epa.gov/>>.

26 Kyoto Protocol, Annex B.

27 UNFCCC, Decision 5/CP.6, Implementation of the Buenos Aires Plan of Action (2001) at VI.4, para 1.

Commitment Period Reserve (90 per cent of the initial assigned amount or 100 per cent of five times the last reviewed inventory) acts to prevent states from overselling their units which would possibly result in non-compliance with their targets.<sup>28</sup> Annex B parties that emit less than their AAUs can trade their excess units at a market-determined price to other parties that are in need of more units to cover their emissions. Annex I parties can also issue removal units (RMUs) for carbon sequestration generated from land use, land-use change and forestry (LULUCF) which can also be traded amongst Annex B parties as Kyoto units.<sup>29</sup>

## **2.2 Clean Development Mechanism**

Established in art 12 of the Protocol, the CDM was designed to assist developing countries (non-Annex I parties) with sustainable development while at the same time enabling Annex B parties to meet their compliance targets.<sup>30</sup> This contributes to the overall goal of the UNFCCC described above. The CDM provides an avenue for Annex B parties to invest in or buy certified emission reduction units (CERs) (equal to 1 tonne CO<sub>2</sub> equivalent GHG) that are generated from emissions reduction projects in developing countries. This enables Annex B parties to buy or generate Kyoto units where it is cheapest to do so globally.<sup>31</sup> The reasoning behind the CDM is that there is greater potential for cheaper emissions reduction projects in developing countries where environmental regulation is less stringent than in industrialised countries.<sup>32</sup> In terms of reducing emissions there is more low-hanging fruit available to collect at lower costs than in Annex B parties' home countries.

## **2.3 Joint Implementation**

Established in art 6 of the Protocol, JI facilitates similar flexibility for meeting emissions targets as with the CDM. It permits Annex B parties to sponsor

28 Organisation for Economic Co-operation and Development "Commitment Period Reserve" (2001) <<http://www.oecd.org/>> at 2.2.

29 Kyoto Protocol, art 3.3. There are specific requirements in place for whether afforestation and reforestation activities will be eligible to generate RUs, mainly that land being used must not have been a forest prior to 1 January 1990. Paul Kennet and others *The Carbon Forest* (1st ed, Kennet Brothers Limited, Wellington, 2010) at 18.

30 Christoph Sutter and Juan Carlos Parreño "Does the current Clean Development Mechanism (CDM) deliver its sustainable development claim? An analysis of officially registered CDM projects" (2007) 84(1) *Climatic Change* 75 at 76.

31 Jacob Werksman "The clean development mechanism: unwrapping the 'Kyoto Surprise'" (1998) 7(2) *Review of European Community & International Environmental Law* 147 at 148.

32 At 148.

or fund emissions reduction projects hosted by other Annex B countries.<sup>33</sup> Successful JI projects generate emission reduction units (ERUs) equal to 1 tonne of CO<sub>2</sub> equivalent GHG which are issued by the host country and distributed to the participating Annex B party or authorised entities of an Annex B party. Whereas CDM generates new Kyoto units, JI converts them from the host country's AAUs and transfers them to the investing party. As a matter of carbon accounting this ensures that the overall goal of a 5 per cent reduction of 1990 levels is not affected by avoiding an increase in the overall amount of AAUs. JI and CDM projects must also satisfy the element of additionality: emissions reductions projects must produce additional reductions that would otherwise not have occurred.<sup>34</sup> This safeguard acts to prevent the rewarding of projects that do not limit emissions, or would have occurred anyway in the absence of JI or CDM.

### **3. NEW ZEALAND'S EMISSIONS TRADING SCHEME**

The Climate Change Response Act 2002 (CCRA) was enacted in the lead-up to New Zealand ratifying the Kyoto Protocol in 2002. It was enacted in order to provide the Government's primary response to climate change and serve to fulfil the commitments New Zealand made when ratifying the Kyoto Protocol (lowering emissions to 1990 levels for the period of 2008 to 2012).<sup>35</sup>

The CCRA established the New Zealand Emission Unit Register which allowed New Zealand to participate in the Kyoto Protocol trading mechanisms but it did not specify the means by which New Zealand would fulfil its obligations. Following the enactment of the CCRA a carbon tax and cap-and-trade scheme were both considered as viable options to perform this function. In the face of fierce opposition and lobbying from vested interests (such as the agricultural industry) the Labour-led Government of the time eventually scrapped the proposed economy-wide carbon tax before ultimately deciding on the NZ ETS.<sup>36</sup> The NZ ETS was given life in September 2008 by the Climate Change Response (Emissions Trading) Amendment Act 2008. This brought the NZ ETS into force under the CCRA and established the NZU as the primary domestic unit of trade (to be issued by the NZ EUR and traded alongside Kyoto units and approved overseas units).<sup>37</sup> This enactment not only enabled

33 Kyoto Protocol, art 6.

34 Articles 6(1)(b) and 12(5)(c).

35 Ministry for the Environment, above n 7.

36 David Bullock "Emissions trading in New Zealand: development, challenges and design" (2012) 21 *Environmental Politics* 657 at 661.

37 Climate Change Response Act 2002, s 4.



New Zealand to participate in the Kyoto mechanisms but also committed the Government to reducing emissions below “business-as-usual” levels.<sup>38</sup>

The NZ ETS operates as a polluter-pays system whereby the cost of emissions is internalised by placing the burden of cost on emitters. New Zealand’s major emitters that participate in the NZ ETS must surrender NZUs (or other Kyoto units) to the Government to cover their GHG emissions on an annual basis. NZUs that are held in a NZ EUR holding account and not required to cover emissions can be sold on the open market or saved for future use. There is no expiry date on NZUs.<sup>39</sup>

The New Zealand Environmental Protection Authority is responsible for ensuring compliance with the NZ ETS under the CCRA. This includes: ensuring that parties with obligations under the CCRA are signed up to the scheme; operation of the NZ EUR; monitoring and reporting; the allocation of free NZUs; and the receipt of emissions reports and surrendered NZUs on behalf of the Government.<sup>40</sup> Penalties for non-compliance with the NZ ETS include a fine of up to \$24,000 for failure to comply with supplying information and a possible fine of up to \$50,000 and/or five years’ imprisonment for knowingly submitting false or misleading information.<sup>41</sup> There is more leniency shown toward sectors in their first year of compliance and also when errors are voluntarily reported. An automatic penalty applies when there is a failure to surrender or repay units if required to do so. In addition to surrendering the units, a \$30 per unit penalty is imposed for every unit not surrendered or repaid by the due date.<sup>42</sup>

Emitters who are required to participate in the NZ ETS are set out in sch 3 of the CCRA which includes the following sectors: forestry; liquid fossil fuels; electricity production; industrial processes; synthetic gases; and waste.<sup>43</sup> Some participants in the NZ ETS (such as forest owners) earn NZUs and some participants are given NZUs to help cover the costs in emissions-intensive sectors. The NZ ETS was originally heralded as an enterprising, all-encompassing, sector-wide, internationally linked scheme, which could pioneer the way forward for emissions trading.<sup>44</sup> The original form of the NZ ETS did not last long however. A change to a National-led Government only months after the NZ ETS was established resulted in a watered-down version of the

38 Climate Change Response (Emissions Trading) Amendment Act 2008, s 5.

39 Ministry for the Environment “Surrendering emission units” Climate Change Information New Zealand <[www.climatechange.govt.nz](http://www.climatechange.govt.nz)>.

40 Environmental Protection Authority “Ensuring compliance with the Emissions Trading Scheme” (December 2013) NZEUR <<http://www.eur.govt.nz/>>.

41 Environmental Protection Authority, above n 40.

42 Environmental Protection Authority, above n 40.

43 Climate Change Response Act, sch 3.

44 Toni Moyes “Greenhouse Gas Emissions Trading in New Zealand: Trailblazing Comprehensive Cap and Trade” (2008) 35 Ecology Law Quarterly 911 at 913.

NZ ETS via the Climate Change Response (Moderated Emissions Trading) Amendment Act 2009 one year later.

### **3.1 2009 Amendments**

The 2009 amendments were the result of a political balancing act aimed at easing the financial burden on key economic sectors by weakening obligations while still being seen to support the NZ ETS framework.<sup>45</sup> This was an attempt to avoid costs being pushed on to consumers and avoid the political fallout of abandoning the scheme. The amendments primarily included transitional measures to maintain costs. These were a fixed-price option of \$25 per NZU which could be purchased from the Government and the “one for two” concept. The “one for two” concept meant that all sectors except for forestry would have to surrender only one NZU for every 2 tonnes of CO<sub>2</sub> equivalent emissions. This transitional period was to be phased out in 2012 when the NZ ETS would next be under review.

The 2009 amendments also brought in a change from “grandparenting” (historically based) free allocations to production-based or intensity-based free allocations. These amendments were further aimed at harmonising the NZ ETS with the proposed Australian scheme (though ultimately not passed) at the time. The switch from “grandparenting” to intensity-based allocations was one of the supporting amendments to attempt this harmonisation.<sup>46</sup> There were also significant changes to the staggered entry of different sectors into the NZ ETS: the transport, electricity, and non-liquid stationary energy sectors were delayed by six months until July 2010; liquid fossil fuels were brought forward by six months to July 2010; and the agriculture sector was delayed by two years until January 2015.<sup>47</sup>

### **3.2 2012 Amendments**

The NZ ETS was amended again in 2012. The transitional measures included in the 2009 amendments were extended indefinitely. This means that the fixed-price option of \$25 per NZU and “one for two” arrangements are ongoing. The entry of the agriculture sector in 2015 was also delayed indefinitely. The Government has indicated that surrender obligations for biological agricultural

<sup>45</sup> Bullock, above n 36, at 662.

<sup>46</sup> Jessika Luth Richter and Luis Mundaca “Achieving and maintaining institutional feasibility in emissions trading: the case of New Zealand” (2014) *Mitigation and Adaptation Strategies for Global Change* 1 at 3.1.2.

<sup>47</sup> Ministry for the Environment “Participating in the New Zealand Emissions Trading Scheme (NZ ETS)” (14 January 2014) *Climate Change Information New Zealand* <<http://www.climatechange.govt.nz/>>.

emissions will only be included in the NZ ETS when technology has advanced far enough to reduce these emissions, and only when overseas competitors take on sufficient obligations.<sup>48</sup> Offsetting was introduced for pre-1990 forests to enable landowners to use their land more effectively without incurring deforestation costs as long as carbon equivalent forests are planted elsewhere. The power for the Government to increase the number of available NZUs through an auction was also introduced as a potential means of controlling supply and demand. The Government is currently examining ways to develop an auctioning feature for the NZ ETS that will reduce the need for participants to lower their emissions using offshore options, by controlling an increased supply of NZUs.<sup>49</sup>

The cost-containment measures included in the 2009 and 2012 amendments came at the expense of environmental effectiveness. The Ministry for the Environment revealed that in an analysis of the 755 public submissions on the 2012 amendments, approximately 60 per cent of industry and professional organisations (9 per cent of the total submissions) supported the Bill. Less than 5 per cent of submitters who identified themselves as scientists or academics (88 per cent of the total submissions) expressed support for the Bill or the purpose it contained.<sup>50</sup>

### **3.3 Beyond the First Kyoto Commitment Period**

The year 2012 also saw the adoption of the Doha Amendment to the Kyoto Protocol by the COP in December. This amendment established a second commitment period for the Protocol from 2013 to 2020. During this second commitment period parties agreed to the legally binding collective target of reducing GHG emissions by 18 per cent of 1990 levels.<sup>51</sup> New Zealand (along with Japan and the Russian Federation) did not sign on to the second commitment period and instead set new reduction targets under the auspices of the more general UNFCCC agreement.<sup>52</sup> The difference is that while New Zealand is still a party to the Kyoto Protocol (which sets legally binding targets), by setting its targets under the UNFCCC it is not legally obligated to

48 Ministry for the Environment "Legislative changes to the New Zealand Emissions Trading Scheme (NZ ETS)" (4 November 2014) Climate Change Information New Zealand <<http://www.climatechange.govt.nz/>>.

49 Ministry for the Environment "Funding for NZ ETS supply management" (21 May 2015) <<http://www.mfe.govt.nz/>>.

50 Ministry for the Environment "Departmental Report on the Climate Change Response (Emissions Trading and Other Matters) Amendment Bill" (September 2012) NZ Parliament <<http://www.parliament.nz/>>.

51 Doha Amendment to the Protocol, art 3.1.

52 Canada, New Zealand, Japan and the Russian Federation were all parties to the first commitment period although Canada withdrew midway through that period.

uphold them. New Zealand's unilateral pledge under the UNFCCC to do its "fair share" in addressing global climate change is threefold:<sup>53</sup>

- an unconditional target of 5 per cent below New Zealand's 1990 GHG emissions levels by 2020
- a conditional target range of 10 to 20 per cent reduction below 1990 GHG emissions levels by 2020 if there is a comprehensive global agreement
- a long-term target of a 50 per cent reduction in emissions below 1990 levels by 2050.

The conditional target was announced in August 2009 and is dependent on the following conditions being met: a global agreement towards limiting temperature rise to 2 degrees Celsius; comparable efforts from other developed countries; action from advanced and major emitting developing countries based on respective capabilities; effective LULUCF rules; and unimpeded recourse to an efficient international carbon market.<sup>54</sup> The 2050 target was announced in 2011 as a credible long-term emissions reduction target based on New Zealand's net GHG emissions, including removals and emissions from afforestation and deforestation since 1990.<sup>55</sup>

Of the three emissions reductions targets the unconditional target of 5 per cent below 1990 levels by 2020 is the most relevant to the NZ ETS. It sets the benchmark for what the NZ ETS aims to achieve and replaces the previous goal set by the first commitment period of the Kyoto Protocol. While not as ambitious as the 18 per cent reduction goal of the second commitment period, New Zealand's target would be equivalent to a 2013 to 2020 QELRO of 96.8 based on 1990 emissions which is more ambitious than the previous QELRO of 100 for the first commitment period. Because New Zealand has not signed on to the second commitment period, however, it will have to meet its 2020 target without access to the Kyoto markets.

It was decided by the COP in Doha (December 2012) that parties not participating in the second commitment period would not be eligible to trade in Kyoto units for that period.<sup>56</sup> This means that any participants in the NZ ETS are unable to trade (purchase or transfer) any Kyoto units into, or out of, their

53 Ministry for the Environment "New Zealand's emissions reduction targets" (31 October 2014) Climate Change Information New Zealand <<http://www.climatechange.govt.nz/>>.

54 Ministry for the Environment, above n 53.

55 "The Climate Change Response (2050 Emissions Target) Notice 2011" (31 March 2001) 41 *New Zealand Gazette* 959 at 987.

56 *Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol* FCCC/KP/CMP/2012/13/Add.1, Decision 1/CMP.8 (2013) at IV.

NZ EUR accounts for the second commitment period. The exception to this rule is that parties may still participate in CDM projects regardless of whether they have made a second commitment. This exception enables the demand for CERs to remain high especially given that Japan has been the second-largest buyer.<sup>57</sup> CERs are still eligible to be transferred into a NZ EUR account directly from the CDM pending account, by the process of primary issuance or forwarding of CERs.<sup>58</sup> CERs transferred into New Zealand will not be eligible for transfer offshore and NZ EUR account holders may only participate in CDM projects with a Letter of Approval from the Government. As it stands there is currently an ongoing hold on the issuance of any Letters of Approval by the New Zealand Government.<sup>59</sup> This means that while NZ ETS participants may trade in Kyoto units until the completion of the “true up” period in November 2015, from that point on the NZ ETS will essentially operate as an entirely domestic scheme.

The “true up” period is a 100-day additional period to allow parties to fulfil their first commitment period targets under art 3 of the Kyoto Protocol. This period commenced on 10 August 2015. The date was set by the COP in Lima (December 2014) to go ahead as long as the review and compliance procedures had been performed for the 2012 annual inventory reports (required to be submitted by each party to the Kyoto Protocol in 2014).<sup>60</sup> The last annual inventory reports were received in July 2015 meaning that this date could go ahead. Consequently, the end of the “true up” period for the first commitment period will be 18 November 2015.<sup>61</sup> At this time certain surplus first commitment Kyoto units (any AAUs and a percentage of CERs and ERUs) may be carried over into the second commitment period.<sup>62</sup> Because New Zealand will not be participating in the second commitment period any “carry-over” of first commitment Kyoto units into second commitment Kyoto units would be unusable. Instead the Government set the date of 31 May 2015 at which time all Kyoto units from the first period had to be surrendered (with the exception of New Zealand AAUs held in NZ EUR accounts).<sup>63</sup> Since 1 June 2015 the only units eligible for surrender within the NZ ETS are NZUs and New Zealand AAUs which will have been automatically carried over.<sup>64</sup>

57 Wolfgang Sterk and others *Sands Are Running Out for Climate Protection* (Wuppertal Institute for Climate, Environment and Energy, 2012) at 3.

58 Environmental Protection Authority “NZEUR account holders access to Kyoto units” NZEUR <<http://www.eur.govt.nz/>>.

59 Simon Bridges “Decisions on Kyoto Protocol emission units” (press release, 6 December 2013).

60 UNFCCC, above n 16, at 3.3.

61 UNFCCC “True-up process” (August 2015) <<http://unfccc.int/>>.

62 UNFCCC *The Marrakesh Accords and the Marrakesh Declaration* (2001), art 15.

63 Simon Bridges, above n 59.

64 Environmental Protection Authority, above n 40.

## 4. WHERE ARE WE NOW?

### 4.1 New Zealand's Unique Emissions Profile

New Zealand has a unique GHG emissions profile when compared to other developed countries. On a global scale New Zealand's GHG emissions appear to be insignificant at approximately only 0.1 per cent of global GHG emissions.<sup>65</sup> New Zealand's ability to influence climate change pales in comparison to the major emitting nations such as China (29 per cent), the United States (15 per cent), the European Union (10 per cent) and India (5 per cent).<sup>66</sup> When viewed on a per capita basis, however, New Zealand's contribution to climate change is much more significant. New Zealand ranks fifth highest for total GHG emissions amongst developed countries on a per capita emissions basis, placing it behind only the United States, Australia, Canada and Luxembourg.<sup>67</sup> New Zealand's GHG emissions have also been steadily on the rise with an increase of 15.4 million tonnes of CO<sub>2</sub> equivalent (Mt CO<sub>2</sub>-e) or 25 per cent in 2012 compared to 1990 levels.<sup>68</sup> Some developed nations have managed to decrease their emissions over the same period — for example, a 19.2 per cent (1,082 Mt CO<sub>2</sub>-e) decrease by the European Union.<sup>69</sup>

What makes New Zealand's emissions profile unique is the contribution from different sources and sectors. In most developed countries the agricultural sector contributes an average of approximately 12 per cent of total GHG emissions whereas in New Zealand it contributes to roughly half (48 per cent in 2013) of total emissions.<sup>70</sup> This also means that the quantities of different GHGs being emitted in New Zealand are unique. Around 80 per cent of most developed nations' GHG emissions are CO<sub>2</sub> whereas in New Zealand the largest quantity of GHG emissions is methane (52.5 per cent in 2012).<sup>71</sup> While CO<sub>2</sub> persists for much longer in the atmosphere, methane poses a significant immediate threat as it has a much greater warming potential (approximately

65 JGJ Oliver and others *Trends in global CO<sub>2</sub> emissions: 2014 Report* (PBL Netherlands Environmental Assessment Agency, The Hague, 2014) at 2.3.

66 Joint Research Centre "CO<sub>2</sub> time series 1990–2013 per region/country" Emission Database for Global Atmospheric Research (7 January 2015) <<http://edgar.jrc.ec.europa.eu/>>.

67 Charles Feltham "Climate change agreements" Parliamentary Library (24 September) <<http://www.parliament.nz/>>.

68 Feltham, above n 67.

69 European Environment Agency "Annual European Union greenhouse gas inventory 1990–2012 and inventory report 2014" (2014) <<http://www.eea.europa.eu/>> at ES.2.

70 Ministry for the Environment "New Zealand's Greenhouse Gas Inventory 1990–2013 Snapshot" (April 2015) Publication INFO 745 <<http://www.mfe.govt.nz/>>.

71 Ministry for the Environment "New Zealand's Greenhouse Gas Inventory 1990–2012 and Net Position Snapshot" (April 2014) Publication INFO 709 <<http://www.mfe.govt.nz/>>.

20 times greater) than that of CO<sub>2</sub>.<sup>72</sup> To put the New Zealand profile in context there are approximately 6.6 million cows in the country which can produce as much excrement waste as an equivalent human population of approximately 84 million people.<sup>73</sup> The entire environmental footprint of a cow is larger than a car.<sup>74</sup>

## 4.2 Exclusion of the Agriculture Sector

The indefinite delay of biological emissions from the agriculture sector into the NZ ETS means that roughly half of the country's total GHG emissions are not included in the scheme. Ironically the initial drafts of the Kyoto Protocol did not cover agricultural emissions and New Zealand was one of the parties that successfully advocated for them to be included.<sup>75</sup> At the time, New Zealand's agricultural emissions were forecast to fall and having them included in the Kyoto Protocol would be advantageous. There was a decrease in emissions from sheep and beef cattle but these reductions were greatly offset by the rapid expansion of the dairy industry.<sup>76</sup>

The argument underpinning the delay or prevention of entry into the scheme, as strongly advocated by Federated Farmers, is that there is a lack of potential mitigation opportunities. This may be true, especially with regard to the mitigation of biological emissions from cows. But it has also been argued that there are plenty of low-cost, commercially available and profitable measures to take. While methane produces approximately two-thirds of agricultural emissions, research into mitigating the remaining third (predominantly nitrous oxide) is greatly more advanced.<sup>77</sup> The Sustainability Council released a report called *A Convenient Untruth* in June 2007 which details these measures in great depth.<sup>78</sup> Without delving into the debate on the available emissions reductions in the agriculture sector, arguments can be made that there are at least some emissions reductions available.

Not including the agriculture sector in the NZ ETS puts massive pressure on the other sectors to find reductions which pushes prices on to their consumers. For example, three quarters of New Zealand's electricity generation is already from renewable sources so there are fewer low-cost options available to make

72 United States Environmental Protection Agency "Overview of Greenhouse Gases" (2014) <<http://epa.gov/>>.

73 Eugenie Sage "Fed Farmers leading wrong way on water" (press release, 7 July 2014).

74 Bertram and Terry, above n 11, at 8.1.

75 At 8.1.

76 At 8.1.

77 At 8.2.1.

78 Sustainability Council of New Zealand *A Convenient Untruth* (June 2007) <<http://www.sustainabilitynz.org/>> at 2.0.

emissions reductions in the energy sector.<sup>79</sup> Not including effective reduction incentives for every sector raises the costs of complying with the NZ ETS to the economy as a whole. This occurs either by the exclusion of a sector from the NZ ETS or the award of large amounts of free allocations of NZUs to certain sectors within the scheme. Higher costs are imposed on the other participants within the scheme that are still required to meet their obligations. Bertram and Terry have estimated the true cost of this scenario to illustrate who really picks up the bill under the NZ ETS.<sup>80</sup> They have previously estimated that households and private road users bear 52 per cent of the direct costs arising out of the NZ ETS despite only accounting for 19 per cent of emissions and that small and medium industry would pick up 38 per cent of the costs while only accounting for 11 per cent of emissions. On the flipside, large industrial companies were estimated to shoulder only 1 per cent of the costs while contributing to 15 per cent of emissions. Agriculture, while contributing 49 per cent of emissions, was only bearing 3 per cent of the costs. The cost of excluding agriculture from the NZ ETS is exacerbated by the free allocation of NZUs to other emissions-intensive industries.

### **4.3 Allocation of Free Units**

All NZ EUR account holders that receive a free allocation of NZUs are in line for a potential windfall, albeit of an unknown value. The free allocation of NZUs is a potential asset that can be sold at an undetermined price so long as the units are not required by the holder to cover their own emissions. The price is undetermined because it will depend on the supply and demand for NZUs on the market. Assuming that the price of each NZU is above zero then everyone receiving those free units will be financially better off by the amount they can sell them for. This will presumably be a price between \$0 to \$12.50 per NZU at which price they can be purchased from the Government. As of August 2015 the NZU was trading at approximately \$6.85, with ERUs trading at approximately \$0.10.<sup>81</sup> NZUs that are freely allocated but not required to cover emissions create a windfall gain for participants compared to others that did not receive a free allocation or who required their full allocation to cover their emissions. Free allocation of NZUs can create new wealth for the initial recipients at the expense of those who need to purchase them or those that indirectly bear the costs that are passed on to them (such as consumers).<sup>82</sup> Who

79 Ministry for the Environment, above n 70.

80 Bertram and Terry, above n 11, at 6.2.

81 Carbon Forest Services "Indicative Carbon Prices — NZUs & ERUs" (15 August 2015) <<http://www.carbonforestservices.co.nz/>>.

82 Bertram and Terry, above n 11, at 4.1.



receives free allocations and how many they receive is therefore always going to be a contentious issue in an emissions trading scheme.

Sectors that receive free allocations in the NZ ETS are: forestry; industrial processes; stationary energy; and agriculture (if/when it is introduced). The commercial fishing sector is not a sector that participates in the NZ ETS but it was provided with 700,000 NZUs as a one-off allocation in September 2010.<sup>83</sup> This was due to the expectation that commercial fishers would suffer significant increases to input costs due to the effect of the NZ ETS on fuel prices.<sup>84</sup> Free allocation to the forestry sector, at least, should not be a contentious issue as it is fully justifiable. The carbon sequestration of Kyoto eligible forests has earned New Zealand a large amount of RMUs for the first commitment period. All of the RMUs generated by crop forestry were appropriated by the Government so they should be fairly compensated with an allocation of NZUs. Kyoto forest owners may feel legitimately aggrieved given there is now a Government-imposed price cap and access to the Kyoto markets has been restricted from 31 May 2015 for an indefinite period of time. The loss of access to the Kyoto markets means the rewards for forest sector carbon sequestration are effectively expropriated for the benefit of other emitters.

In theory, market-based mechanisms such as emissions trading systems create incentives for participants to reduce or offset their emissions through flexible and decentralised measures.<sup>85</sup> Participants are permitted to pick and choose which emissions reductions projects they should implement and invest in, at the least cost to themselves. However, when participants are granted an allotment of freely allocated emissions units, that incentive is greatly diminished. Participants may no longer need to pick and choose any emissions reduction projects if they can simply surrender their free allocations to meet their obligations.

#### *4.3.1 From “grandparenting” to intensity-based allocations*

Under the original 2008 NZ ETS the approach to free allocations was to use the “grandparenting” method. This involved a fixed number of freely allocated units to be issued based on average historic levels of emissions. Energy-intensive trade-exposed industries (including the agriculture sector) would have

83 Office of the Auditor-General New Zealand “The Emissions Trading Scheme — summary information for public entities and auditors” (24 August 2011) <<http://www.oag.govt.nz/>> at 6.3.

84 Office of the Auditor-General New Zealand, above n 83. Commercial fishers received a share of this allocation based on the weight of their fishing quota as a proportion of the total weight equivalent of all quota for all fish stocks.

85 Brittany Harris “Repeating the Failures of Carbon Trading” (2014) 23 *Pac Rim L & Pol’y J* 755 at 764.

received fixed annual amounts of NZUs until 2018, which were to be set at 90 per cent of 2005 emissions and phased out by 2030. Under the “grandparenting” method any expansion of emissions-producing activities in the future would not generate a revised allocation of NZUs. While this could initially be costly for producers in the short term, the long-term advantage would be preventing higher and more costly emissions in the future.<sup>86</sup>

The 2009 amendments enacted a change from the “grandparenting” method to an intensity-based approach. Under the intensity-based approach free allocation of NZUs is awarded per unit of current production.<sup>87</sup> The level of assistance for high emissions-based activities is set at 90 per cent of an emissions baseline (different for each eligible activity) and calculated using the amount of prescribed product produced from that activity.<sup>88</sup> The level of assistance for moderate emissions-based activities is set at 60 per cent. The overall amount of allocations calculated using this equation is divided by two to reflect the “one for two” surrender arrangement. The eligible activities and emissions baselines are contained in the Climate Change (Eligible Industrial Activities) Regulations 2010. Even though companies are allocated units for free, there is still an incentive to improve emissions intensity in order to free up NZUs that would otherwise have to be surrendered and instead sell them on the market (or bank them for future use).<sup>89</sup> The downside of intensity-based allocations is that they reduce the cost of increasing emissions in the future unless they are phased out. Given the indefinite and transitory nature of the NZ ETS this is unlikely to happen anytime soon.

#### *4.3.2 Problems with free allocation*

##### *(i) Carbon leakage*

The logic behind providing free allocations is that it is necessary to protect international competitiveness and avoid any carbon leakage.<sup>90</sup> There are two possible types of carbon leakage: technological and geographical. Technological carbon leakage occurs when companies use revenue that they have generated through an emissions trading scheme to reinvest in fossil fuels and GHG-emitting activities. Geographical carbon leakage occurs when GHG reductions in one country produce higher emissions in another country. This would typically occur by moving emissions-intensive activities from an

86 Christina Hood “Free Allocation in the New Zealand Emissions Trading Scheme: A Critical Analysis” (2010) 6(2) *Policy Quarterly* 30 at 31.

87 Climate Change Response (Moderated Emissions Trading) Amendment Act 2009, sub-pt 2.

88 Ministry for the Environment “How does industrial allocation work?” (3 December 2012) Climate Change Information New Zealand <<http://www.climatechange.govt.nz/>>.

89 Hood, above n 86, at 31.

90 Richter and Mundaca, above n 46, at 3.1.2.

industrialised country to a developing nation that has little or no reduction obligations. Examples arising out of the European Union Emissions Trading System were when large integrated firms such as Scottish Power, CEZ, and RWE withheld their carbon credits and instead passed on the costs of the scheme to their consumers and ratepayers.<sup>91</sup> This generated a massive windfall of profit (approximately \$112 billion EURO) that was reinvested into GHG-emitting power plants.<sup>92</sup> Companies that were unable to pass on their costs to consumers such as chemical engineering firms simply moved their businesses overseas to countries with less stringent environmental regulations.<sup>93</sup>

Even New Zealand with its large amounts of free allocations is not immune to this problem. As with most Annex I countries, New Zealand's use of coal is declining but its production and export of coal remains high.<sup>94</sup> Coal miners incur costs under the NZ ETS for coal that remains in the country but do not incur those costs if the coal is exported overseas. The NZ ETS does cover emissions from fossil fuels but only those that are created within New Zealand. The by-products associated with coal extraction are covered by the NZ ETS but any future emissions that arise from New Zealand coal being burned overseas are not. Exported coal is subtracted out of the equation when performing the calculation of emissions for which a coal producer will be liable.<sup>95</sup> These emissions escape the NZ ETS and are unlikely to be accounted for elsewhere given that most coal is exported to developing nations. The allocation of NZUs does not prevent a sector from passing on its costs to consumers or "exporting" their emissions.

## (ii) Inflation

If too many NZUs are allocated then the NZ ETS runs the risk of over-issuing its tradable currency relative to the demand. Inflation can undermine the integrity of the NZU as New Zealand's primary carbon currency by diminishing its value.<sup>96</sup> The amount of liable emissions obligations must always exceed the amount of available NZUs on the market otherwise the price of the NZU will be compromised. Under the first commitment period the NZ ETS had some in-built Kyoto obligations that would have acted to prevent any over-issuing of NZUs. The Commitment Period Reserve (discussed above) that was designed to prevent Annex I parties from overselling their units would also keep the

91 Benjamin Sovacool "The policy challenges of tradable credits: A critical review of eight markets" (2011) 39(2) *Energy Policy* 575 at 581.

92 At 581.

93 At 581.

94 Ministry of Business, Innovation and Employment "Coal Data Tables" (19 December 2014) <<http://www.mbie.govt.nz/>>.

95 Climate Change (Stationary Energy and Industrial Processes) Regulations 2009, s 11.

96 Bertram and Terry, above n 11, at 7.7.

supply of NZUs in check.<sup>97</sup> The Government would be obligated to hold a sufficient amount of NZUs in the Crown holding account to cover the possible requirement of converting NZUs into AAUs to satisfy the Commitment Period Reserve obligation.

If the Crown account did not have an adequate supply of NZUs then it could be caught short in the case of NZU holders wanting to cash in and convert their holdings into AAUs (to be traded on the international market). If the offshore sale of NZUs (or export of emissions through other flexibility mechanisms) threatened the Government's reserve position then the registry would have to close. This would devalue the NZU and render them unconvertible.<sup>98</sup> The only available option to avoid this situation would be to top up the reserve through a buy-back of Kyoto units at the taxpayers' expense. Either way this is a situation that the Government would be keen to avoid by maintaining a surplus of NZUs in the Crown holding account. However, with no second commitment period obligation, the Government does not need to avoid this situation and could in theory devalue the NZU through inflation, either by mistake or intention. With no cap on the total amount of NZUs in the market there is no guarantee this will not happen.

#### **4.4 Is it a Cap-and-Trade Scheme?**

The fundamental difference between an emissions trading scheme and a carbon tax is that the price of carbon in a trading scheme will fluctuate. In theory the same price of carbon can be achieved by a carbon tax or a trading scheme (with a regulatory cap) that permits market forces to determine the price.<sup>99</sup> If 100 per cent of the tradable units (equal to the amount of emissions the regulator wishes to reduce) are openly auctioned off, then the revenue collected would be the same as if the regulator had set a tax price per tonne for the same amount of emissions.<sup>100</sup> Each tonne of emissions will carry the price tag set by either the Government or by market mechanisms. The effect on producers or consumers that bear the cost of the NZU will be the same. The difference is that in a carbon tax the revenue goes to the Government and in a trade scheme the money goes to the sellers of the units.

The 2012 enactments introduced the ability for the Government to auction off NZUs but that power has not yet been put to use. In an orthodox cap-and-trade scheme the absence of an auction would dictate that participants in the NZ ETS would have to purchase NZUs (or Kyoto units for the first commitment

<sup>97</sup> At 7.7.

<sup>98</sup> At 7.4.

<sup>99</sup> At 4.2.

<sup>100</sup> At 4.2.

period) on the open market at the current going rate. In addition to fluctuating carbon prices the cap-and-trade method requires some form of quasi-property right to be issued to the scheme's participants to enable the trade of emissions units.

#### *4.4.1 Is there a quasi-property right?*

The NZU does come with certain property rights. A NZU is not owned by a proprietor but is held in a NZ EUR account of a registered participant in the NZ ETS. The CCRA uses the deliberate and consistent language of "holding accounts" and "account holder" when referring to the registration, use, and allocation of NZUs.<sup>101</sup> The words "owner" or "ownership" are never referred to with regard to NZUs within the Act. Holding a NZU does, however, generate certain rights. Most specifically, holding a NZU grants the holder the right to surrender that NZU to cover 1 tonne of CO<sub>2</sub> equivalent GHG emissions. It also generates the right to sell, trade, or transfer that NZU to any other eligible account holder.<sup>102</sup> Whether it grants the right to emit GHGs, or whether emissions themselves can be owned as property, is an argument beyond the scope of this article and would require discussion of the atmosphere as a global commons.<sup>103</sup>

For the purposes of establishing a quasi-property right, ownership of a NZU is analogous to that of resource consents under the Resource Management Act 1991. Resource consents in general are neither real nor personal property but can be transferred by the holder.<sup>104</sup> The difference lies in being treated as if you own something for the purpose of facilitation, rather than actually being the physical owner of that thing.<sup>105</sup> In theory the rights granted to NZU holders are capable of ownership but because it appears the legislature only ever intended them to be "held", they cannot be fully owned.<sup>106</sup> A NZU in a holder's NZ EUR account enables the holder to cover 1 tonne of CO<sub>2</sub> equivalent GHG emissions as opposed to creating a right to emit to those emissions. The quasi-property rights generated by the NZ ETS are therefore characteristic of a cap-and-trade scheme.<sup>107</sup>

101 Climate Change Response Act, s 18.

102 New Zealand Emission Unit Register "Guide to Transferring Units Within NZ" (April 2012) <<http://www.eur.govt.nz/>>.

103 See, for instance, John Vogler "Global Commons Revisited" (2012) 3(1) Global Policy 61.

104 Resource Management Act 1991, s 122.

105 Roger Fenton *Garrow and Fenton's Law of Personal Property in New Zealand* (7th ed, LexisNexis, Wellington, 2010) vol 2 at 34.

106 Kevin Gray "Property in Thin Air" (1991) 50(2) CLJ 252 at 304.

107 Bertram and Terry, above n 11, at 4.2.1.

#### *4.4.2 Is the price dictated by market mechanisms?*

The carbon price is only partially dictated by market mechanisms in the NZ ETS due to the option of purchasing NZUs from the Government at a set price (\$25 per tonne of CO<sub>2</sub> equivalent GHG emissions). Participants are therefore only likely to buy NZUs if they are sold at a cheaper price than the fixed-price offer. In combination with the “one for two” deal this means that the market price would have to be less than \$12.50 to warrant consideration from buyers. Because the NZ ETS will essentially be cut off from the Kyoto markets following the end of the “true up” period, the only NZ EUR account holders likely to have a surplus of NZUs available to trade will be in the forestry sector. The current market price of approximately \$6.85 (August 2015) per NZU is lower than the fixed-price option and should be able to respond to demand.<sup>108</sup>

#### *4.4.3 Does the revenue go to the Government?*

NZUs that are surrendered to the Government will be cancelled and the emissions that they were surrendered for will be successfully covered. Cancelled NZUs are taken completely out of circulation and generate no revenue.<sup>109</sup> Kyoto units surrendered to the Government to cover emissions can be used by the Government to meet its obligations under the Kyoto Protocol up until the end of the “true up” period (November 2015).

Revenue generated from the trade and sale of NZUs can be used as the seller sees fit. Under a standard carbon tax the revenue generated would all go to the Government. In theory this would then be recycled into the climate change regime through the provision of appropriate subsidies for renewables and transitional assistance for adversely affected sectors. The fixed-price option muddies this distinction, however, because NZUs bought at the fixed price of \$25 per NZU are purchased from the Government.

#### *4.4.4 Is there a cap?*

An important feature of an emissions trading system is an overall cap on emissions. The cap will be determined by the regulating authority as a total emissions limit for all participants that have obligations under the scheme. In theory even though the price of emissions will fluctuate, the absolute quantity of emissions entering the atmosphere can still be controlled.<sup>110</sup> The NZ ETS

108 OMF Financial “NZUs close a[t] \$6.90” (14 August 2015) OMF NZ Carbon Market Review <<http://www.carbonnews.co.nz/>>.

109 OMF Financial, above n 108.

110 Harris, above n 85, at 765.

does not have an absolute cap on emissions unlike other schemes such as the European Union Emissions Trading Scheme.<sup>111</sup>

#### *4.4.5 Tax versus cap and trade*

Generally a tax can ultimately be distinguished from a cap-and-trade system if quantity is responding to price. Conversely, if the price is responding to quantity then a cap-and-trade system can be distinguished from a tax.<sup>112</sup> The current arrangement of the NZ ETS makes it impossible to draw a distinction on these lines as it does not fit one or the other.

With respect to setting a price signal ( $\leq \$25$  per NZU) the NZ ETS is like a tax. The price itself is predominantly uncertain as it still responds to supply and demand, albeit in a highly modified and imperfect market that is flooded with NZUs from free allocations. The incentive to reduce emissions is therefore very limited given that there is the security blanket of a maximum possible price and opportunity to buy cheap NZUs when available, due to no minimum price.

The trading of NZUs under the NZ ETS, whereby the price responds to demand, is characteristic of a cap-and-trade scheme. In the absence of an actual cap, however, there is no ceiling for the supply and demand to push against. The process of trading cannot be a rationalised decision based on the amount of available units in the market because the number of NZUs in the system can increase at any time. Bertram and Terry describe this as combining the worst features of both options.<sup>113</sup>

Essentially the NZ ETS is a cap-and-trade system (with no absolute cap) that functions like a tax (with an uncertain price). The only tradable NZUs not surplus to those issued by the Government are those that arise out of the forestry sector.

If the NZ ETS was realigned as a conventional carbon tax the scheme could in theory still achieve the same end. The concept of free allocations is tantamount to leaving NZ ETS participants to collect the “tax” themselves by selling their surplus NZUs at the market rate. The transfer of wealth is synonymous to a tax on the general public only that it is done in private between limited parties.<sup>114</sup> Transfers under the NZ ETS do not occur on the Government’s balance sheet and are shielded from public scrutiny. The details of a conventional tax, however, would be recorded in the publicly available budget and appear in the Crown financial statement.<sup>115</sup> This would add transparency to the NZ ETS and provide a clearer account of who is

111 Richter and Mundaca, above n 46, at 1.1.

112 Bertram and Terry, above n 11, at 4.2.1.

113 At 4.2.1.

114 At 4.1.

115 At 4.1.

paying what; what emissions they are covering and at what cost. The switch to a conventional carbon tax is an option worth further consideration from the Government.

#### **4.5 What does the Future Hold?**

New Zealand should have no problem meeting its first commitment obligations under the Kyoto Protocol during the “true up” period in late 2015. This will not be due to a gross reduction in New Zealand’s total GHG emissions, but due to the large amount of RMUs (71.6 million) generated from forestry offsets and the large number of Kyoto units (90 million) acquired through the Kyoto flexibility mechanisms.<sup>116</sup>

New Zealand’s GHG emissions continued to rise throughout the first commitment period. They were in fact 25 per cent higher than 1990 levels in 2012.<sup>117</sup> This highlights the peculiarity of the Government’s decision not to commit to the second Kyoto Protocol commitment period. New Zealand will now have to try and meet its unilateral (although not legally binding) target of a 5 per cent reduction of 1990 GHG emission levels without access to the Kyoto markets that proved pivotal in meeting the first commitment obligations. Without the RMUs and other Kyoto units New Zealand would be facing a 70 million unit deficit for the first commitment period rather than a 90 million surplus.<sup>118</sup> This is especially concerning given the Government’s long-term target of a 50 per cent reduction from 1990 levels by 2050. The most recent Ministry for the Environment annual report is forecasting nearly a 50 per cent increase on 1990 GHG emission levels by the year 2030 which is in stark contrast to the Government’s stated goals.<sup>119</sup>

The intense forest planting that took place in the mid-1990s in New Zealand created a windfall of Kyoto credits under art 3.3 of the Kyoto Protocol. This provided essential aid towards meeting New Zealand’s short-term commitments but it is not a long-term solution. The forests planted in the 1990s will be due for harvesting over the next decade and as result net emissions will continue to rise through till 2030.<sup>120</sup> This cycle will continue as forests planted post-2012 will begin to absorb large quantities of CO<sub>2</sub> and provide a temporary respite before they too are harvested in the future. The only way to achieve one-off complete emissions reduction through forestry is by permanent afforestation

116 Ministry for the Environment “Latest update on New Zealand’s net position” (21 November 2014) <<http://www.mfe.govt.nz/>>.

117 Environmental Protection Authority, above n 40.

118 Ministry for the Environment, above n 116.

119 Ministry for the Environment “Report of the Ministry for the Environment for the Year ending 30 June 2014” (October 2014) <<http://www.mfe.govt.nz/>> at 68.

120 At 68.



and perpetually maintaining newly planted forests.<sup>121</sup> If no post-1990 forests are maintained then the emissions offsets generated from forestry will only have deferred emissions to a later date. If the price of NZUs plummeted, or the price of timber outweighed the NZ ETS costs, a wave of deforestation could undo all of the emissions reductions that have been attributed to those offsets.<sup>122</sup> The NZ ETS policy of permitting deforestation through the surrender of NZUs and the heavy reliance on offsets perpetuates this potential threat.<sup>123</sup>

The NZ ETS will probably remain a largely superficial and transitory scheme until there is a renewed global emissions reduction scheme. It is anticipated that a second globally inclusive climate change agreement will be reached at the COP in Paris, December 2015.<sup>124</sup> Any agreement that is reached, however, is unlikely to be put in place until 2020, at the completion of the second Kyoto commitment period.<sup>125</sup> This was signposted at the COP in Warsaw 2013 and confirmed by the COP in Lima 2014. The decisions by the COP (1/CP.19 and 1/CP.20) invited all parties to submit Intended Nationally Determined Contributions (INDCs) to the Secretariat in advance of COP 21 in Paris.<sup>126</sup>

The purpose of the INDCs is for each country to publicly identify post-2020 climate action intentions under a new international agreement. The INDCs provide an opportunity for countries to outline emissions reduction ambitions in light of domestic circumstances and capabilities. It is also an opportunity to identify climate adaptation strategies and acknowledge the need for support. New Zealand's INDC, as submitted to the Secretariat in July 2015, is a commitment to a 30 per cent reduction of GHGs below 2005 levels by 2030.<sup>127</sup> New Zealand's INDC is provisional, subject to confirmation of access to carbon markets and the approach towards accounting in the land sector. It also identifies the need for cost-effective mitigation technology, especially in the agricultural sector, in order to achieve domestic reductions.

It is very unlikely that the New Zealand Government will enact any meaningful changes to the NZ ETS unless it will have to re-evaluate it in light of a new agreement. The door does remain open for New Zealand to rejoin the

121 Bertram and Terry, above n 11, at 5.2.

122 At 5.2.

123 Ministry for the Environment "Forestry's obligations: Deforestation and offsetting" (14 May 2014) Climate Change Information New Zealand <<https://www.climatechange.govt.nz>>.

124 European Commission "The 2015 international agreement" (11 December 2012) <<http://ec.europa.eu/>>.

125 European Commission, above n 124.

126 *Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol* FCCC/CP/2014/10/Add.1, Decision 1/CP.20 (2015).

127 New Zealand Government "New Zealand's Intended Nationally Determined Contribution" (Submission to the ADP, 7 July 2015).

Kyoto markets if it were to sign up to the second commitment period. This would reintroduce the NZ ETS to the Kyoto Protocol's flexibility mechanisms and would regrant access to Kyoto units. The current future of the NZ ETS and the world carbon economy at large is very unpredictable. In the meantime the NZ ETS is likely to maintain the status quo, stuck in perpetual transition, yielding negligible emissions reductions for the foreseeable future.