Climate Cheats

How New Zealand is cheating on our climate change commitments, and what we can do to set it right

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April 2016

THE MORGAN FOUNDATION
Thinking for the future

Contents

Foreword by Gareth Morgan iii

Executive summary v

Cartoon Summary vii

1. Innocent beginnings: Carbon trading – what was the intent? 1

2. Fraud, corruption and hot air: How the carbon markets became a crime scene 3

- How do we know if credits are legit? 3
- How are ERUs created? 4
- "Emissions Reduction" Units? Yeah, nah 4
- Hot air – emissions credits to burn, and profit from 6
- Laundering hot air 7
- ERU explosion 8
- Organised crime 10

3. New Zealand, the worst carbon credit cheat: How New Zealand became the top consumer of Ukrainian and Russian junk 12

- Conspicuous consumption 12
- How did this happen? The NZ ETS 14
- History of a policy failure 18
- Is our government culpable? 24
- Complicit in climate fraud 26

4. The consequences of climate crime: Subsidising 'dumb and dirty' growth 28

- Collateral damage 28
- Profit from pollution 29
- Price gouging 31

5. New Zealand's climate con job: How the Government is living off the proceeds of crime 32

- The plan to meet our commitments 32
- Principles schminciples 35
- "Pretty legal" 36
- Other countries cancel their surpluses 36
- The long con? 37

6. It's the putting right that counts: Conclusion and recommendations 38

- What should we do? 39

References 41

List of figures and tables

Figure 1: Greenhouse gas emissions per capita in 2012 iv
Figure 2: New Zealand's greenhouse gas emissions 1990-2013 iv
Figure 3: Imported credits held by the NZ government 3
Figure 4: Environmental integrity of Emission Reduction Units 5
Figure 5: ERU issuance and price 2009-14 9
Figure 6: Countries' use of offsets under the Kyoto Protocol 13
Figure 7: Where New Zealand's ERUs come from 14
Figure 8: Carbon prices in NZ 2010-15 15
Figure 9: ERU takeover - units used in the NZ ETS 2010-2014 17
Figure 10: NZ carbon price history, annotated with key events 19
Figure 11: Afforestation, deforestation, and net change in dairy farm area 2008-14 29
Figure 12: How the Government plans to meet our emissions targets to 2020 32
Table 1: Estimated total spend on ERUs by New Zealand companies 17
Table 2: The Government's plan for meeting emissions targets to 2020 33

Glossary

AAU	Assigned Amount Unit – emissions permits issued to countries under the Kyoto Protocol to represent the allowed emissions budget (target).
CER	Certified Emission Reduction – tradeable carbon credit under the Kyoto Protocol issued for emissions reductions in developing countries.
CP1	The Kyoto Protocol's first commitment period, 2008-12.
CP2	The Kyoto Protocol's second commitment period, 2013-20.
ERU	Emissions Reduction Unit – tradeable carbon credit under the Kyoto Protocol issued for emissions reductions in participating developed countries.
EU	European Union.
ETS	Emissions Trading Scheme.
Hot Air	Term referring to the large excess of emissions allowances issued to East European countries, due to the Soviet Union's economic collapse.
Kyoto Protocol	International climate change treaty signed by New Zealand in 1997, which committed developed countries to binding emissions reduction targets.
NZU	New Zealand Unit – emissions units issued by the NZ government for use by companies participating in the NZ Emissions Trading Scheme only.
RMU	Removal Unit – Kyoto Protocol emissions allowances generated through storing carbon in trees.
UN	United Nations.

Foreword

Gareth Morgan

The actions undertaken by New Zealand towards our international commitments on climate change will contribute to further slippage in our international reputation for honesty and transparency.

Over recent years New Zealand's ranking for fairness, honesty and certainly transparency has taken a beating as our Government has demonstrated contempt for all three. Contributing to our fall on the Transparency International ratings have been political interference with official information requests; manipulation of data being made public; outright instances of undue political influence – Oravida, the Saudi sheep deal, the Sky City Convention arrangement; order and security, fundamental rights and civil justice; regulatory enforcement; and environmental governance - particularly New Zealand's poor performance on greenhouse gas emissions and water quality.

To this list we can now add ongoing dealing in fraudulent carbon credits manufactured by organised crime in Ukraine and Russia. Despite full knowledge of this fraud our Government is continuing to use these products to avoid its undertakings on carbon emissions.

The reality is that in 2012 our Government decided to join Tony Abbott's Australian Government's approach to climate change and in essence turn our back on it. The difference was that Abbott was fully up front about the intent, aggressively so. By contrast our Government has stealthily but steadfastly circumvented the intent of the agreements it has entered, not just by diluting the mechanisms for adjustment (like our Emissions Trading Scheme), but by trading in the products of organised crime in Ukraine and Russia.

The Government is expecting to continue to use these fraudulent carbon credits to meet its 2020 emissions reduction pledge – and if it is not brought to account, may also go on to use the proceeds of crime it has accumulated as part of meeting our 2030 target.

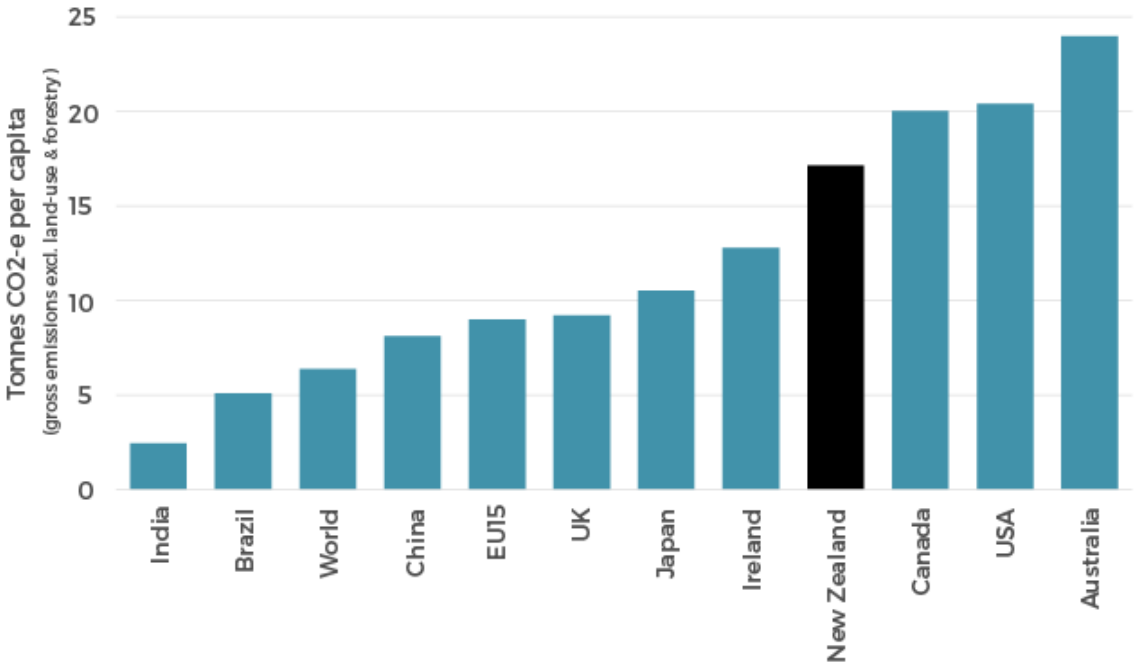
New Zealanders need to mobilise and tell our Government in no uncertain terms that this sort of dubious activity is not acceptable.

Through this whole period of endeavor to reduce carbon (which began back in the late 1980s), New Zealand's actual carbon emissions remain at one of the worst per capita rates in the world – as the graphs below illustrate.

Our Government is on record as saying it is gambling on a 'silver bullet' technological breakthrough to deliver our carbon emissions reduction. That intent confirms our Government's enthusiasm to just keep cheating the global consensus to combat climate change – until that 'new dawn' arrives. To treat the whole process with such contempt, and further, despite that reality, assert that we are doing our bit, simply exposes our Government's approach for what it is.

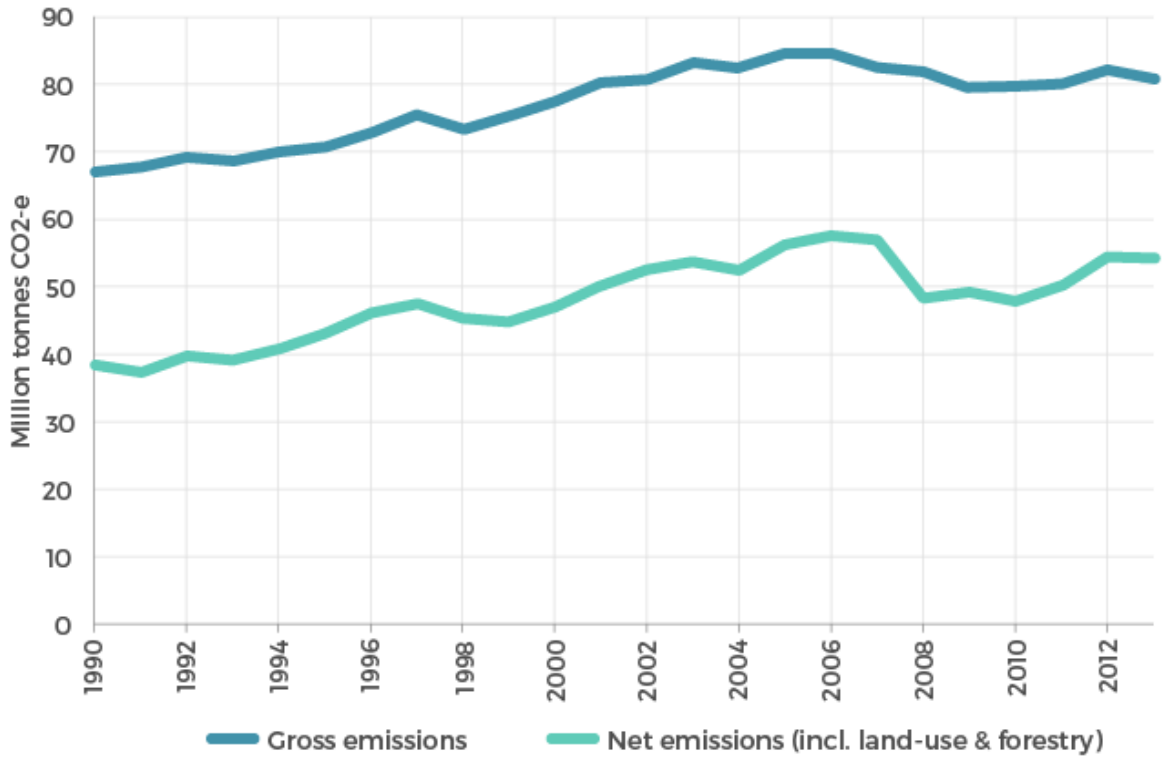
We are, without doubt, cheats.

Figure 1: Greenhouse gas emissions per capita in 2012



Sources: developed economies from UNFCCC (2014);[1] developing & emerging economies from World Resources Institute (2014). [2]

Figure 2: New Zealand's greenhouse gas emissions 1990-2013



Source: New Zealand Government (2015).[3]

Executive Summary

The Government's plan for meeting our Kyoto Protocol commitment and 2020 emissions reduction target was released late last year. Underlying this plan is a shocking truth: New Zealand has been a willing participant in a wholesale climate fraud.

This report explores this issue in greater detail and establishes three key facts:

- One type of Kyoto carbon credit (the Emission Reduction Unit) was overcome by fraud and corruption in Ukraine and Russia. Virtually all of the credits issued by these countries are 'hot air' – they do not represent true emissions reductions. (Chapter 2)

- Proportional to our emissions, New Zealand has been by far the largest purchaser of these Ukrainian and Russian credits through our Emissions Trading Scheme. This was due to deliberate decisions by the National-led Government to – unlike any other country – continue allowing unlimited use of these and other foreign credits for as long as the international community let us. (Chapter 3)

- Our Government now plans to knowingly utilise all these fraudulent credits so it can claim we are meeting our international obligations through to at least 2020. Meanwhile our actual emissions continue to grow in excess of our targets. (Chapter 5)

We have been party to a fraud that has potential to damage our international reputation as a clean, green and corruption-free country.

This fraud has had several nasty side-effects:

- It sent the price of carbon units in our Emissions Trading Scheme (ETS) to virtually zero, hammering our nascent carbon forestry industry.

- We have seen wholesale conversions of land to dairy, such as the massive Wairakei Pastoral estate managed by State Owned Enterprise Landcorp.

- We have put around $200 million in the hands of foreign criminals simply to avoid our ethical obligation to reduce emissions. There has been no environmental benefit when that money could have been used to reduce emissions here.

- In addition, some companies were issued free units by our Government while also being able to exploit the cheap, fraudulent foreign credits. In other words, they have been able to profit from their pollution at the expense of the rest us.

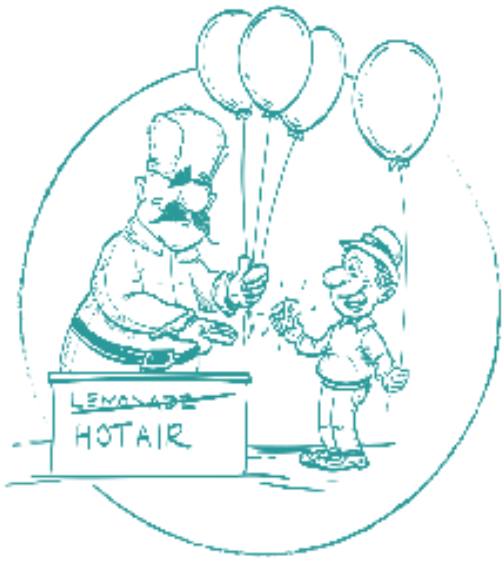
Carbon trading is a fine idea, and an economically efficient way to spread the burden of emissions reduction, but it only works if the credits we buy actually represent a true emissions reduction somewhere else. The sad truth is that the foreign credits New Zealand has gorged on up until now have produced little to no climate benefit. We need to put this right, or risk a hit to our international reputation jeopardising our future access to international carbon trading.

Our three point plan for putting it right, for introducing integrity into our behaviour, includes:

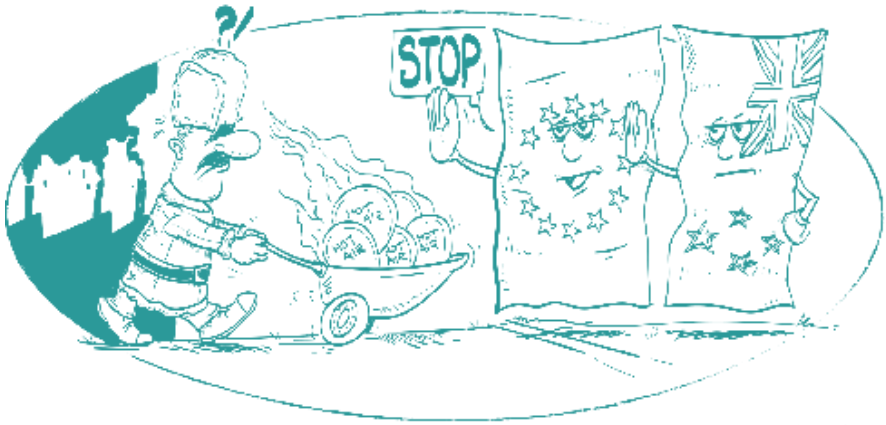
1. Dump the junk – cancelling the fraudulent foreign credits.
2. Burn the bank – remove the 2-for-1 deal and freeze companies' free allocation of New Zealand Units for a year to clear the backlog of banked credits in the ETS.
3. Keep it clean – keep the ETS closed to international trade until we can be certain the system has integrity. In the meantime we could work closely with some of our Pacific neighbours to develop bilateral arrangements.

Cartoon Summary

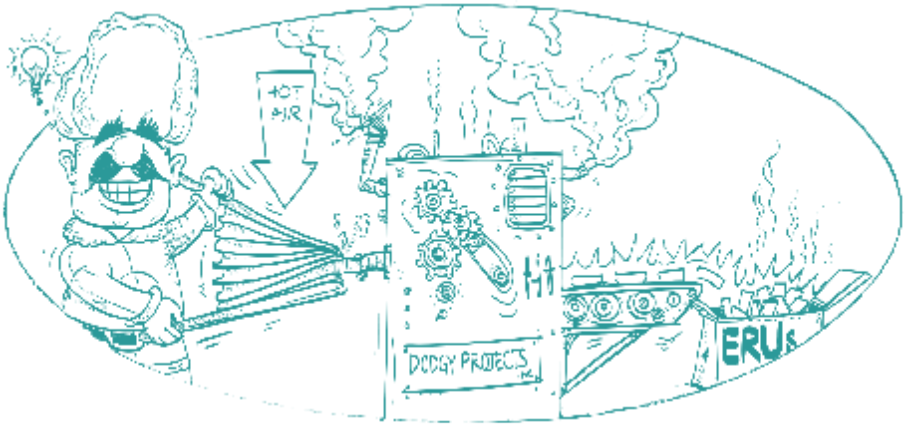
Under the Kyoto Protocol, Ukraine and Russia get a way bigger carbon budget than they need.



Other countries can buy their surplus credits, creating the so-called "hot air" problem. Meet Boris Ripmioff - he sees an opportunity to make some easy cash.



EU & NZ both ban use of hot air credits in Emissions Trading Schemes, and countries vow not to buy it.

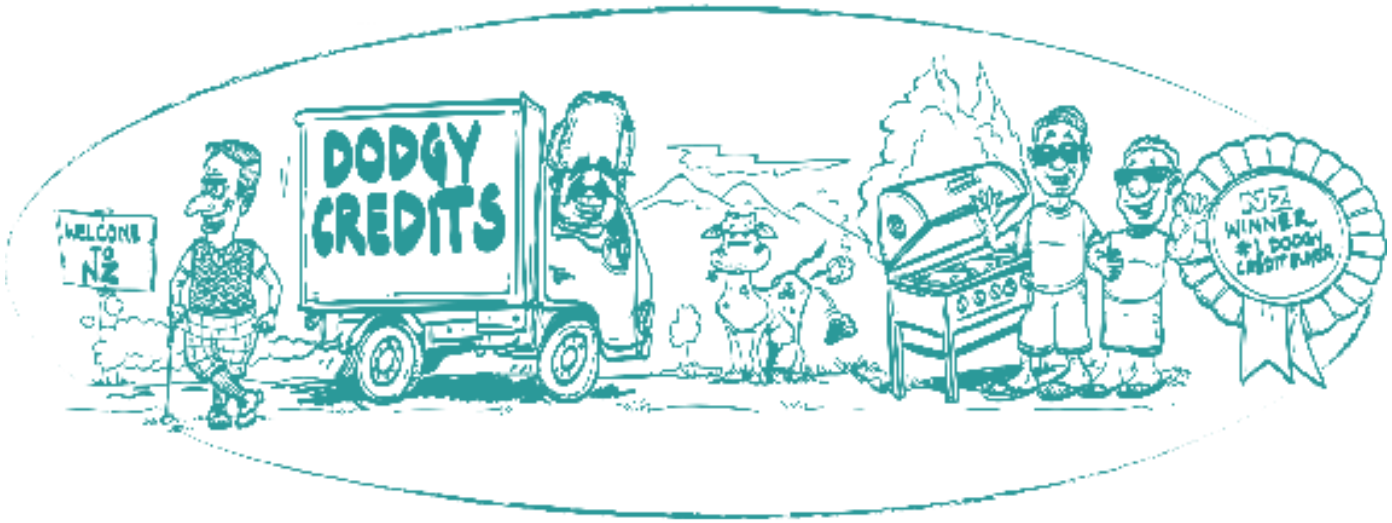


Boris has an idea. He starts using dodgy projects to launder the hot air into tradeable "Emissions Reduction Units" (ERUs), which he can sell.

Meet Cole Burner - he's your typical Kiwi polluter who just wants the cheapest deal. Under the Emissions Trading Scheme, Cole has to hand over carbon credits to the Government to cover his emissions.

Cole hears he can buy credits from Boris for way cheaper than the NZ ones, and the Government will let him use as many as he wants. Sweet!

Over in the EU, they've caught on to Boris' game and effectively banned his dodgy credits.

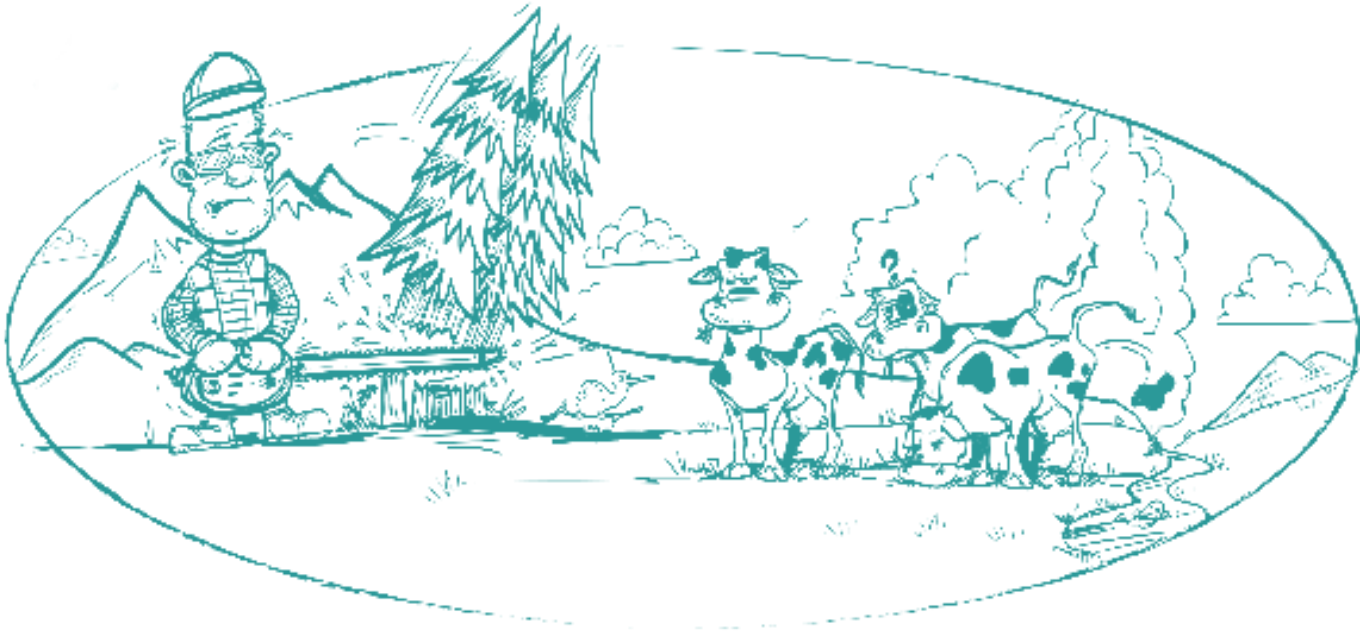


Back in NZ, the Government turns a blind eye and lets Cole and his mates keep buying all their credits from Boris. NZ becomes biggest market for Boris' fraudulent credits.

Consequences

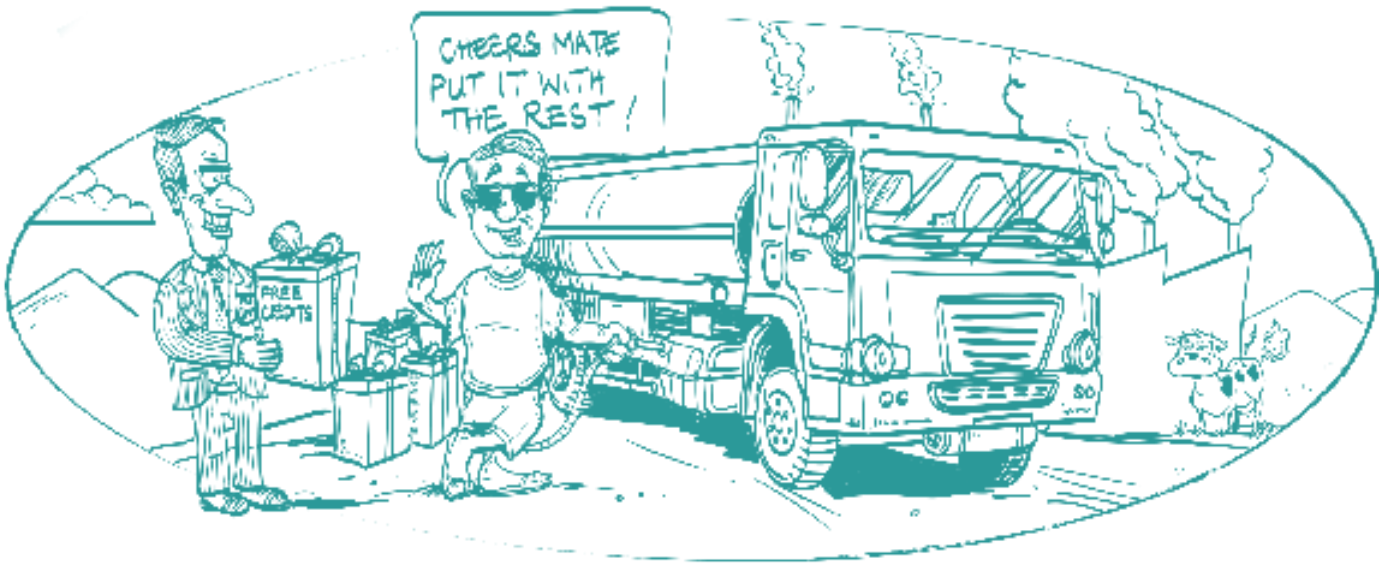
1. From 2011-15, Cole Burner and his mates spend around $200 million on Boris' fraudulent credits, rather than investing that money in emissions reductions in NZ.

-> NZ LINES THE POCKETS OF CRIMINALS OVERSEAS



2. Boris' credits get so cheap that the carbon price in NZ is effectively zero. Cole Burner faces no incentive to cut emissions. NZ carbon foresters can't sell any credits, stop planting. Forests cleared and converted to dairy farms.

-> NZ'S EMISSIONS GROW



3. Government keeps on giving free NZ carbon credits to Cole Burner to reduce impact of ETS on exports. Cole uses Boris' dirt-cheap credits instead and stockpiles the more valuable NZ credits to use or sell later. Cole's other businesses which sell electricity and fuel don't get any free NZ credits, but keep charging you as if carbon was $20 per tonne even though they're buying Boris' credits for as little as 10c.

-> POLLUTERS PROFIT, YOU GET RIPPED OFF

4. Cole and his mates pay all Boris' credits to the government through the ETS. Government uses Boris' credits to meet NZ's Kyoto commitment, knowing they have no environmental value. All Boris's credits create a 'surplus' big enough to meet NZ's 2020 emissions target too - without needing to cut our emissions.

-> GOVERNMENT CHEATS ON CLIMATE TARGETS

1. Innocent beginnings

Carbon trading – What was the intent?

Our story traces back to 1992, when New Zealand joined countries of the world in signing the United Nations Framework Convention on Climate Change. Under this agreement, countries committed to act collectively to stabilise greenhouse gas concentrations "at a level that would prevent dangerous anthropogenic interference with the climate system". Through later agreements, this was honed into the objective of limiting the increase in global average temperature to "well below 2°C".[4]

The Framework Convention also established a founding principle of "common but differentiated responsibilities". In the simplest terms, this meant that developed nations were to take the lead in cutting emissions, given their far greater capacity to do so. This principle manifested in the Kyoto Protocol, under which developed nations would commit to legally binding targets to reduce greenhouse gas emissions. The Kyoto Protocol was signed in 1997, but gave countries an entire decade until the first binding commitment period ('CP1') from 2008 to 2012. It was ratified and entered into force in 2005 (unfortunately, and importantly, without the participation of the United States).

Participating countries committed to cap their emissions at a certain level relative to the base year of 1990 – for example New Zealand undertook to limit emissions to 1990 levels between 2008-2012. Countries could either reduce their emissions below this cap, or if they couldn't manage that, then purchase certain UN-approved carbon credits – or 'offsets' – from emissions-reducing projects in other countries to cover their excess emissions. Sometimes that might mean carbon is removed from the atmosphere, but mostly it involves avoiding an emission that would otherwise have happened. The partners agreed that any trading should be 'supplemental' to national action, but crucially this was never defined.

In a nutshell, the process works like this:

1. A company in Country X applies for certification for an emissions-reducing project;
2. Once certified, the company can apply for credits based on how many emissions reductions the project has (in theory) produced each year;
3. Credits are issued to the company;[i]
4. The company sells some of its credits to companies or the government in Country Y;
5. At the end of the Kyoto Protocol period, the government of Country Y can submit these credits to the UN as part of meeting its emissions commitment, with each credit covering one tonne of emissions.

The theory is that it is total global emissions that matter, so if you can help fund emissions reductions in another country rather than reducing them yourself, no problem. The more cheaply emissions can be reduced, or carbon removed from the atmosphere, the better. But of course, this only works if those credits actually represent a true emissions reduction equal to what they say on the packet. Ensuring this requires robust regulation and certification of any credits in the market.

It all looks fine in theory – and carbon trading does have to be part of the long-term answer to the world's climate challenge. But in setting up the global trading system, there have been many teething problems. In fact, just about everything that could possibly go wrong has done. As we will see, New Zealand has been a willing accessory to the wrongdoing.

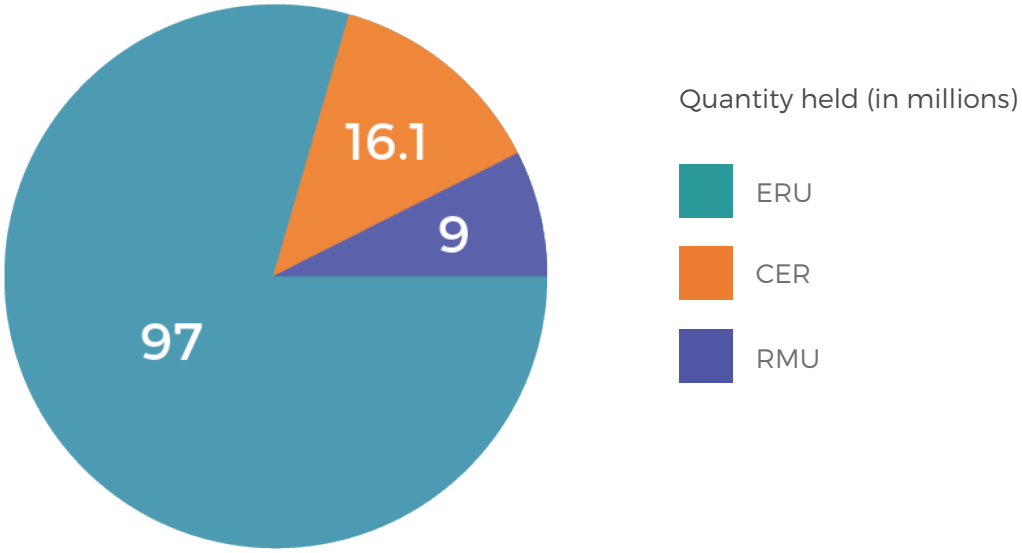
[i] Credits are issued either by a UN body or by the government of Country X, depending on the type of credit.

2. Fraud, corruption and hot air

How the carbon markets became a crime scene

We will see later that New Zealand is the country that has most heavily exploited the Kyoto Protocol's offsetting mechanisms. As a country, we have indulged in all types of carbon credits, but our main vice by far has been the Emission Reduction Unit, or ERU (Figure 3). While all three credit types have their dodgy side, researchers have systematically shown that the vast majority of ERUs issued are probably fraudulent. For these reasons, our analysis here focuses primarily on ERUs.

Figure 3: Imported credits held by the NZ Government



Source: New Zealand Government (2015). [5]

How do we know if credits are legit?

There are two criteria that are most important for assessing the environmental integrity of carbon credits. Additionality refers to whether a project actually resulted in emissions reductions (or removals) additional to what would have otherwise occurred. If a project was financially viable and would have been implemented anyway, without the incentive of selling carbon credits, then it is not additional. Kyoto Protocol rules explicitly state that projects must be additional to be eligible for credits (Article 6(1)b).[6] You can imagine the difficulties in proving this in practice.

The second key criterion is correct crediting: were the emissions reductions caused by the project correctly estimated? For example, if the assumed baseline (the emissions expected to occur in the absence of a project) is too high, then the project will be over-credited.

Obviously without firm guidelines and oversight, companies have an incentive to exaggerate the carbon reductions they are achieving.

How are ERUs created?

ERUs are created under one of the Kyoto Protocol's two offset mechanisms, called Joint Implementation. In essence, ERUs enable countries to fund emissions-reducing projects in other countries that also have binding targets under Kyoto, as an alternative to reducing emissions at home. Certified Emissions Reductions (CERs), created under the Clean Development Mechanism, are similar but for projects in developing countries that aren't participating in Kyoto.

In practice, over 90% of ERUs were created in Russia and Ukraine, for reasons which will become clear.

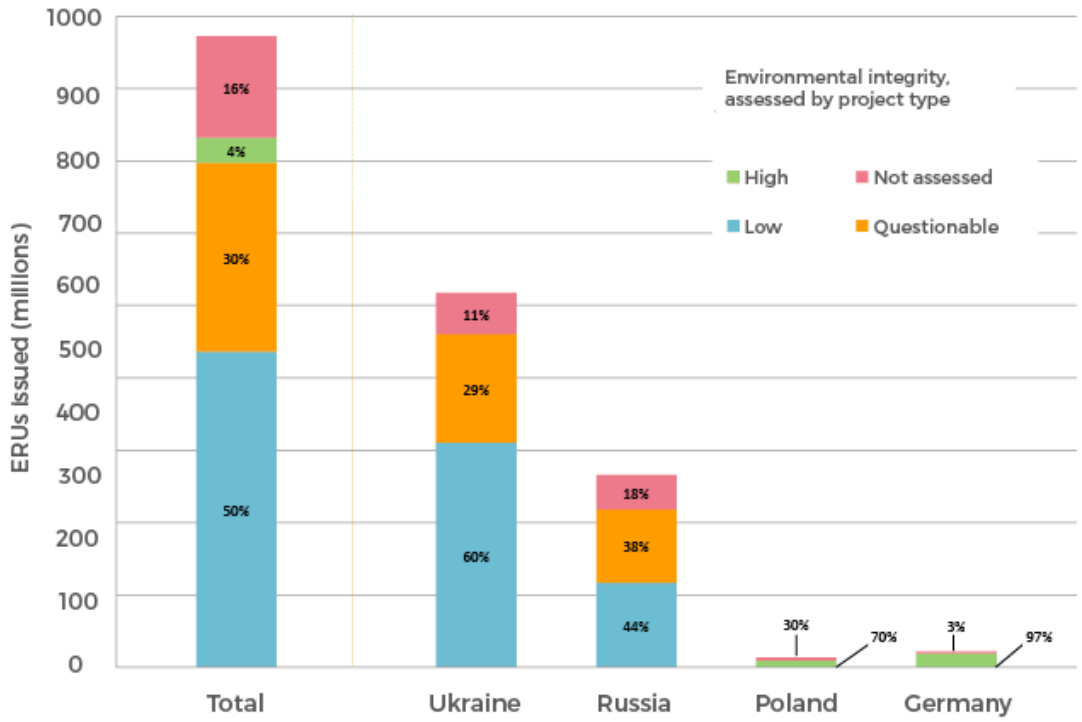
"Emissions Reduction" Units? Yeah, nah

The potential for ERUs to become a vehicle for fraud has been clear for many years, and those in the know have long suspected most ERUs were lacking integrity. [7,8,9] However, in 2015 the respected Stockholm Environment Institute published the first in-depth review to lay the facts on this issue bare, confirming those widely held suspicions[10]. It paints a very ugly picture.

The researchers conducted a detailed assessment of 60 randomly sampled projects (9.3% of the total 642 projects registered). Within this sample, they found that the additionality claims (i.e. that they represented emissions reductions beyond business-as-usual) behind 73% of the ERUs issued were 'not plausible', and a further 12% were 'questionable'.

The researchers also looked further into the six largest project types in terms of ERU issuance. Further to the implausible claims of additionality, they found evidence of projects being over-credited due to exaggeration of the actual emissions reductions. In sum the researchers concluded that "80% of all ERUs come from project types with questionable or low environmental integrity". For Ukraine and Russia – which together accounted for 90% of the total ERUs issued – the percentage of dodgy credits was even higher: more than 89% and 82% respectively (Figure 4).

Figure 4: Environmental integrity of Emissions Reduction Units



Sources: Environmental integrity assessed by Kollmuss et al. (2015);[10] issuance data from UNFCCC (2016).[34]

Real world examples: three dodgy ERU project types

1. Spontaneous ignition of coal piles

Piles of waste from coal mines will occasionally catch fire due to leftover remnants of coal. These projects claimed to reduce those fires, by either extracting the leftover coal from the piles (leaving bare rock) or extinguishing the fires. It turns out almost all such projects were first registered in 2012, but already implemented at least four years earlier – this indicates that companies were cashing in on projects that had already gone ahead without any need for financial support. Furthermore, baseline emissions were overstated due to highly unrealistic assumptions, resulting in over-crediting.

Projects of this type were the largest source of ERUs (more than 26% of the total issued). They all came from Ukraine, from where New Zealand bought most of its ERUs.

2. Natural gas transportation/distribution

Natural gas (methane) is usually supplied through pipeline networks. These projects were supposedly reducing methane leaks in the pipelines or expanding the network of pipes so that more places could use natural gas instead of coal or oil (which emit more CO_2). Again, all the Ukrainian projects were first registered in 2012 but had already started many years earlier (between 2003 and 2006), so the projects clearly weren't preventing emissions that would otherwise have happened. On top of that they assumed methane leakage rates were nearly three times the previous reported data, and that the gas network expansion entirely replaced coal or oil. In reality, in rural areas some of the gas would also replace biomass (e.g. wood), which could actually mean that emissions were raised.

Projects of this type made up 10% of all ERUs, almost all from Ukraine.

3. Abatement of HFC-23 and SF_6

HFC-23 and SF_6 are both very potent greenhouse gases, produced as waste from industrial gas production facilities. It costs very little to destroy these gases relative to their greenhouse gas weighting. These projects seemed to be operating legitimately until 2011, when the Russian Government removed safeguards in the crediting method. From then the facilities deliberately increased their waste gas flows roughly four-fold. The cost of capturing and destroying the waste gases was so small that, even at very low credit prices, companies had a perverse incentive to simply produce more waste and then destroy it.[11]

This project type accounted for 7% of all ERUs, mainly from Russia. ERUs from HFC-23 projects were banned from use in the EU ETS from May 2013,[12] and the NZ ETS from December 2012.[13]

In a nutshell, Ukraine and Russia were gaming the system – taking credit for projects that would have happened anyway (or had already happened several years before being registered for ERUs), overestimating emissions reductions, and deliberately increasing streams of waste gases from industrial plants so they could then claim credits for destroying them.

Vladyslav Zhezherin, one of the co-authors of the study and an independent consultant in Ukraine, said: "Some early JI projects were of good quality, but in 2011–2012, numerous projects were registered in Ukraine and Russia which had started long before and were clearly not motivated by carbon credits. This was like printing money."[14] Speaking to The Guardian, he added: "I would even doubt the physical existence of some of these projects. I would say that many of them were fake."[15]

How did this all happen in a scheme with the United Nations stamp of approval? The answer lies partly in that the rules allowed countries to "largely establish their own rules for approving projects and issuing ERUs, without international oversight". On the surface this seems like an obvious loophole. The full story involves an intertwined issue known as 'hot air'.

Hot air – emissions credits to burn, and profit from

Recall that under the Kyoto Protocol, countries' targets were set relative to their emissions level in the base year of 1990. Russia, Ukraine and other ex-Soviet countries – whose emissions had collapsed along with their economies following the dissolution of the Soviet Union in 1991 – justifiably argued for headroom given their economic situation. Ultimately, both Russia and Ukraine wound up with 2008-12 targets equal to 1990 levels, when in fact their actual emissions were around 36% and 54% below this in the 2003-07 period.[10]

Under the Kyoto process, participating countries were all given an initial allocation of emissions permits by the United Nations equal to their emissions cap for the 2008-12 commitment period. These units are called Assigned Amount Units (AAUs), and can be traded between countries. The problem created by having such excessively lenient caps for the ex-Soviet countries was that if they could sell their surplus AAUs – which were purely an artifact of the base year and emissions targets chosen – to other countries, this would massively undermine real emissions reduction efforts. The huge surplus of AAUs (exceeding 12 billion units) became known as "hot air".[16]

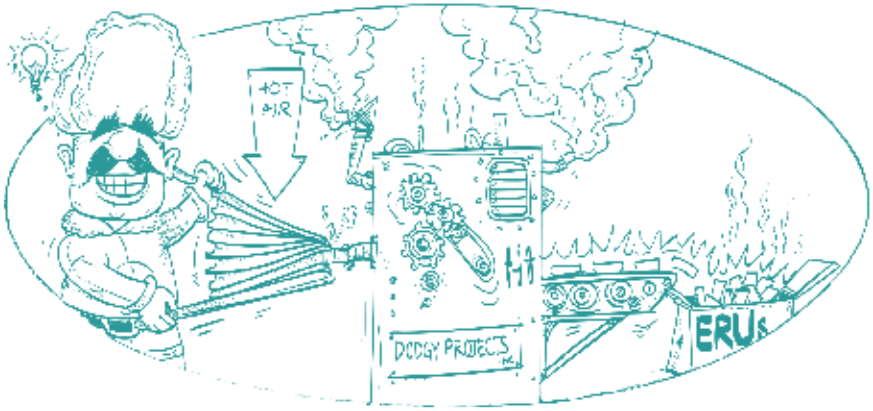
The problem was well-known and, because of this, neither the EU nor the New Zealand Emissions Trading Schemes allowed companies to buy AAUs for compliance. However, as things unfolded, ERUs became a means for countries to effectively launder hot air AAUs.

Laundering hot air

When a government issues an ERU, they must cancel one of the AAUs they were issued by the UN. This is to avoid double-counting, where the host country and the country buying the ERUs both claim credit for the emissions reductions. So unlike CERs (see 'Other traded units' box, p. 10) ERUs don't actually add to the total supply of Kyoto emissions permits; they are essentially a transfer mechanism between countries with binding emissions commitments.

This explains why it was initially thought acceptable to allow countries to effectively set their own rules and self-audit their ERU issuance without oversight. If a project was phony or didn't achieve real emissions reductions, the host country's government would lose AAUs for nothing, for which they would need to compensate by reducing emissions elsewhere. Assuming the country's emissions cap was stringent enough to bite, this should ensure a strong incentive to ensure projects' integrity. And even if a dodgy project was credited, it wouldn't cause a net increase in global emissions.

However, if the country had a surplus of AAUs which they wouldn't need, as happened in the former Soviet bloc, there was no such incentive to ensure integrity. There was nothing to stop countries from laundering away their hot air AAUs by converting them into the more tradable currency of ERUs through dodgy, fraudulent practices.



The potential for this to occur was foreseen by some, who rang the alarm bells. For example:

- UK-based emissions trading watchdog Sandbag mentioned the risk in a 2010 report.[17]
- In December 2011, a report commissioned by the European Commission clearly outlined the key issues we have described here and documented some early examples of dodgy practices.[7]
- In May 2012, European watchdog group Carbon Market Watch published a newsletter stating that the self-audited ERUs "are notorious for their lack of transparency, accountability and environmental integrity" and explicitly warned of countries with large AAU surpluses using this for "hot air laundering".[9] This was followed up with an open letter to all EU member states, co-signed by three other major European environmental NGOs, raising this and other issues directly.[20]

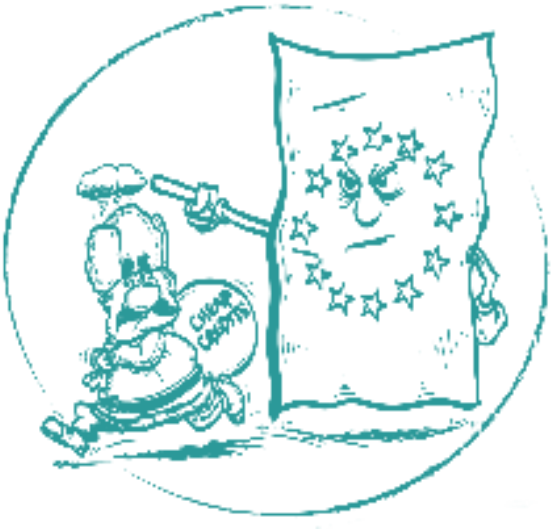
ERU explosion

The lax ERU rules combined with the hot air surplus had created a ticking time bomb.

By 2011, countries were negotiating a second commitment period ('CP2') for the Kyoto Protocol, to apply from 2013-2020. It became evident that if all of the surplus credits from CP1 were allowed to be 'carried over' to the subsequent period, without restrictions on their trading and use, countries could all meet their targets without taking any further action to cut emissions.[19] In other words, there was more than enough hot air already in the system to cover all emissions to 2020 and beyond under business-as-usual.

Efforts to tackle the hot air problem culminated at the UN climate summit in Doha in December 2012. The Doha decisions placed a number of important restrictions on the use of carried over credits in CP2, as well as preventing the creation of further hot air.[20,21] Alongside this, the majority of the remaining Kyoto participants (the EU-27, Australia, Switzerland, Norway, Japan, Monaco and Liechtenstein) all made political declarations in Doha that they would not purchase AAUs from CP1 for compliance in CP2 (New Zealand was not taking part in CP2). The World Bank reported this as "effectively eliminating" the AAU surplus of CP1.[21]

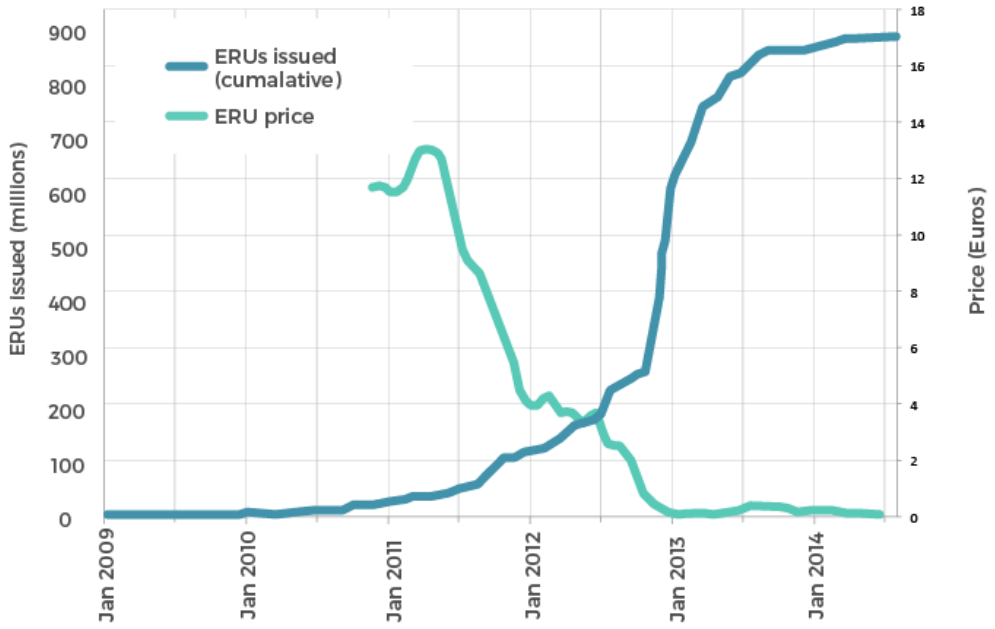
The final part of the crackdown occurred with changes to the rules of the EU Emissions Trading Scheme. As mentioned earlier, trade in AAUs was already banned in the EU ETS, but the EU had now got wind of the games being played with ERUs. Their ETS already had an overall cap on the use of offsets, allowing a combined total of around 1.6 billion CERs and ERUs over the 2008-2020 period (this ensured at least half of the emissions reductions from the scheme would be achieved domestically).[22] In January 2011 they had also announced a ban on use of credits from certain projects that capture and destroy industrial gases, due to concerns about their integrity (see 'Real world examples' box, p. 5).[12]



In October 2012, the European Commission proposed new rules which would clamp down more broadly on dodgy ERUs from Russia and Ukraine.[23] They proposed to ban ERUs issued for CP1 (which could still be traded up to mid-2015) from countries that had not formally committed to a second period emissions target – unless the units were issued under the Joint Implementation 'Track 2' procedure.[24] Track 2 means that the projects followed standardised rules and were audited by a central UN body, rather than leaving this to host governments. The new rules were approved in January 2013, coming into effect on 4 May.[25]

In summary, the UN moves to limit carryover of hot air and the EU's crackdown on the use of dodgy ERUs formed a pincer movement. Russia and Ukraine's hot air surplus would become essentially worthless in CP2, and the pathway for laundering CP1 units into the EU ETS was closing. They faced a "use it or lose it" situation. They responded with a huge surge of ERU issuances from December 2012, tripling the cumulative supply over a period of a few months (Figure 5). No real surprises that these credits have now been shown to be by and large fraudulent.

Figure 5: ERU issuance and price 2009-14



Source: Kollmuss et al. (2015).[10]

Organised crime

Could the false crediting of emissions reduction projects have been an honest mistake? Sadly, the evidence clearly points to deliberate efforts within Ukraine and Russia to maximise the profit from their hot air surplus through whatever means possible – in other words, fraud and corruption.

Insiders back up this view. Speaking to The Guardian newspaper, an unnamed senior UN official went as far as to call it organised crime, saying that Ukraine and Russia's carbon markets had been plagued by "significant criminal energy".[15] He also said that there was a strong element of retribution due to "hurt feelings" following the crackdown on hot air: "It was an outstretched middle finger to the EU saying 'You're shutting out our credits, we're flooding your markets,' a mix of retaliation and crime."

If these allegations seem excessive, it isn't the only instance of carbon markets falling prey to criminal activity. In fact, INTERPOL (the International Criminal Police Organisation) published a guide to carbon trading crime in 2013.[26] In it, they warn that: "Carbon markets, like other financial markets, are also at risk of exploitation by criminals due to the large amount of money invested, the immaturity of the regulations and lack of oversight and transparency."

Finally, it has been well-known for years that Ukraine and Russia have been riddled with corruption. In 2011, Transparency International's Corruption Perception Index ranked Russia 143rd and Ukraine 152nd out of 182 countries. Officials undoubtedly benefited personally in exchange for approving fraudulent projects. In the latest revelation, Ukraine's acting environment minister and two senior officials were sacked in January 2016 for allegedly attempting to embezzle NZ$33 million in revenue from AAU sales.[27] The problems go all the way up.

We have seen in this chapter that countries and companies buying ERUs from Ukraine and Russia have been dealing with fraudsters and criminals to meet their climate change obligations. They have effectively been buying hot air – meaningless bits of paper, not real and additional emissions reductions. To any informed observer this should not have come as a real surprise. Indeed, the EU acted to shut the gates to Ukraine and Russia's ERUs in early 2013. However, as we will see in the next chapter, there was still one last refuge for the fraudulent credits to find a home: New Zealand.

Other Traded Units

Certified Emission Reductions (CERs):

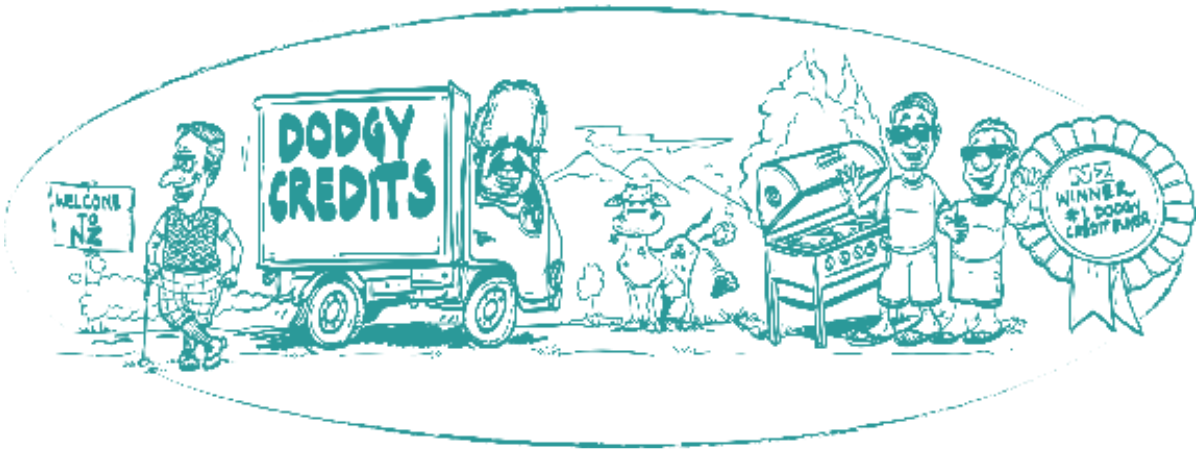
Certified Emission Reductions are approved units created on the basis that they reduced emissions in a non-Kyoto developing country. Most of the >1.5 billion issued to date come from China. There were problems with them early on – particularly around credits from industrial gas projects, which were subsequently restricted – but over time they have improved in quality, due to tightening of regulations.[28,29] One of the key differences from ERUs is that these units had independent international oversight.

Removal Units (RMUs):

RMUs are issued by governments based on official measurements of carbon sequestered by forests and land-use activities. They were banned from use in the EU ETS (along with any other credits from forestry and land-use activities) due to concerns they would only lead to temporary carbon removals, rather than permanent. New Zealand imported a total of around 9 million RMUs, of which 3.9 million were from Hungary and the remainder from France.[30] Hungary was one of the countries with a big surplus of emissions allowances under Kyoto, so buying RMUs from them was really just like buying hot air. It seems that New Zealand was the only country that bought RMUs from Hungary.[31] Very little other information exists about RMU trading.

"Greened" AAUs:

AAUs (issued to countries to represent their national emissions budgets) were not allowed in the EU or NZ Emissions Trading Schemes, but some governments – particularly Japan – made deals to trade these directly. Because of the hot air issue (p. 6), buying AAUs from Eastern European countries with large surpluses was a no-no, but countries developed ways to "green" the AAUs through so-called Green Investment Schemes.[32] These were intended to ensure that the revenue was invested in emissions reduction programmes or projects in the seller country, often through direct technology transfer (e.g. Japan providing hybrid cars). Around 450 million "greened" AAUs had been traded by 2013.



3. New Zealand, the worst carbon credit cheat

How New Zealand became the top consumer of Ukrainian and Russian junk

In the previous chapter we showed how the international carbon market was overrun by fraudulent activities in Ukraine and Russia, and that the vast majority of Emission Reduction Units are 'hot air' credits which do not represent real emissions reductions at all. In this chapter we look at New Zealand's use of these credits and compare what we've done to the other countries participating in the Kyoto Protocol. New Zealand was far from alone in exploiting cheap and potentially dodgy credits. However, our analysis here exposes that, through our Emissions Trading Scheme (which has been the only ETS in the world to operate with no limit imposed on the number of foreign offsets that our companies can use), we have been the top buyer of fraudulent credits relative to our emissions. And when we say "top", we mean by a large margin.

Conspicuous consumption

In late 2015, countries started going through the "true-up process" for the first commitment period of the Kyoto Protocol (CP1, 2008-2012). This is where they officially 'pay the bill' by retiring enough carbon credits to cover their emissions over this period. All countries, except Ukraine,[ii] have submitted a report detailing how many credits of each type they will be retiring (to honour their Kyoto commitment), and how many they intend to "carry over" to the second commitment period (CP2, 2013-2020).[33] These reports give the first clear look at countries' use of Kyoto offsets.

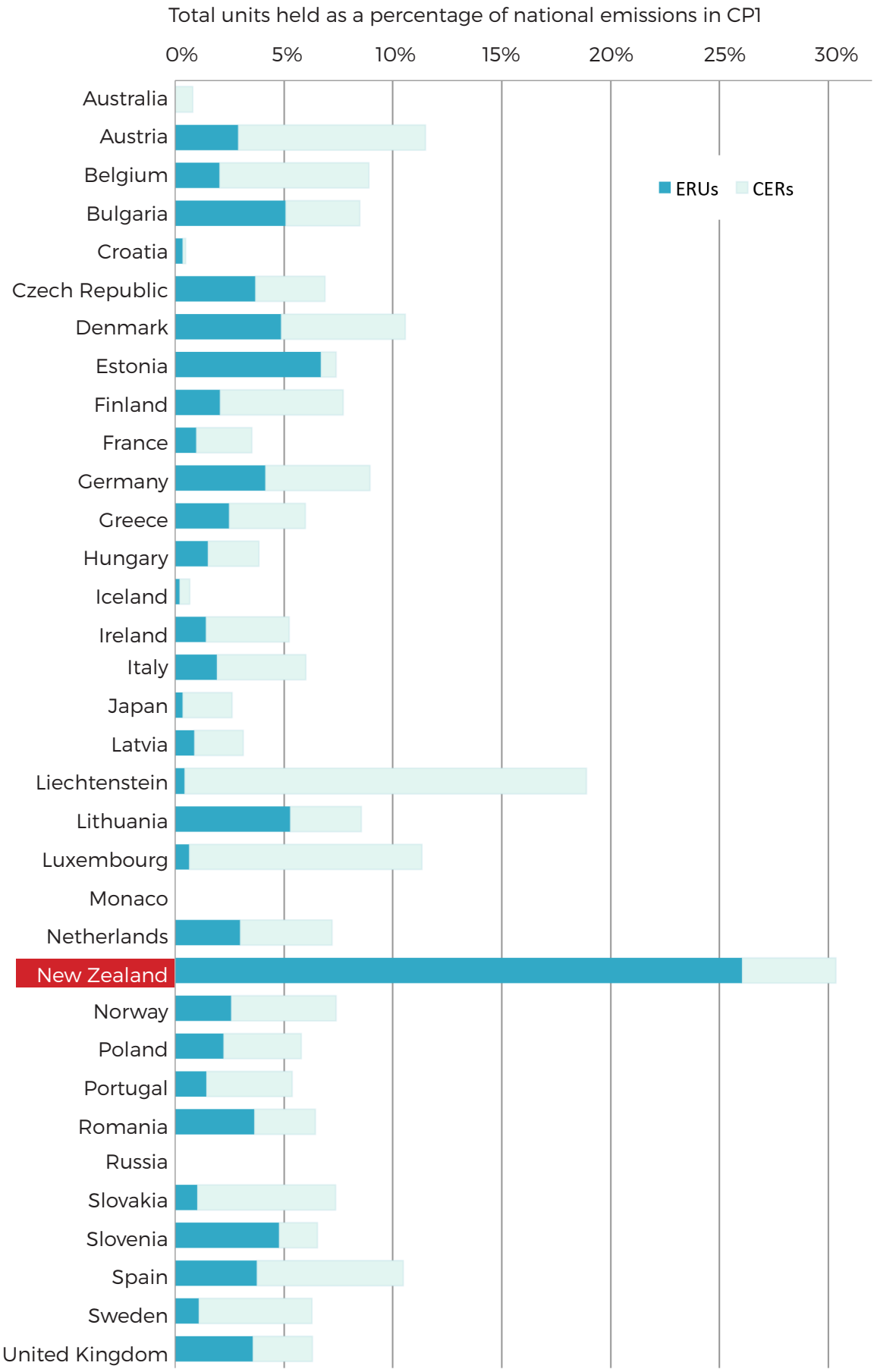
New Zealand's report, published in December 2015, shows that our Government holds a total of 97.0 million ERUs.[5] This is 11% of the total of 872 million ERUs issued to date.[34] Considering New Zealand makes up only 0.6% of total emissions covered by the Kyoto Protocol, this statistic alone illustrates New Zealand's disproportionate use of these credits.

Figure 6 below shows New Zealand's use of ERUs in comparison to all other countries under Kyoto. This graph presents how many ERUs countries possess (and intend to either retire or carry over) as a percentage of their emissions in CP1. At 26%, New Zealand's proportional use is nearly four times that of the next highest country (Estonia at 6.7%). In absolute terms, the only countries holding more ERUs than us are Germany (195 million: about double New Zealand, with emissions around 24 times as high as New Zealand) and the United Kingdom (107 million: slightly more than New Zealand, with emissions around 16 times as high).

Even if we include Certified Emission Reduction units (CERs) – the other Kyoto Protocol offset generated from projects in developing countries – New Zealand is still far and away the highest proportional user of offsets. Some CERs are also subject to concerns about environmental integrity, but to nowhere near the same extent as ERUs (see 'Other traded units' box, p. 10).

[ii] Ukraine is yet to submit its report and is now in non-compliance with the Kyoto Protocol (see http://carbon-pulse.com/12462/).

Figure 6: Countries' use of offsets under the Kyoto Protocol

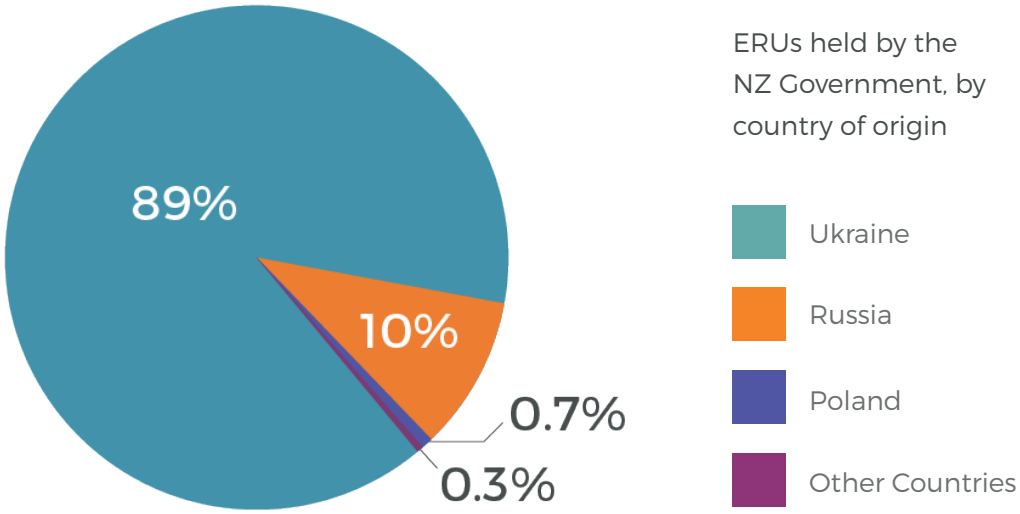


Source: Countries' true-up period reports under the Kyoto Protocol.[33]
N.B. This includes units intended for carry over to CP2.

By analysing the spreadsheets published with New Zealand's report, we also find that virtually all (99%) of the units held by our Government come from Ukraine and Russia (Figure 7). This is higher than the overall proportion of ERUs issued by these two countries – around 90%. As we have shown, it is the credits from Ukraine and Russia that are the problem – most other countries that issued ERUs didn't get into the same fraudulent behaviour, and their credits are far more likely to have environmental integrity (Figure 4). Finally, we will see below that nearly all of the ERUs were bought from 2012 on – after the Ukrainians and Russians had started their fraudulent activity and the price had crashed. The bottom line is that we can be fairly sure that virtually all of the ERUs held by our Government are junk.

Remember that, in theory, cap-and-trade systems are a good way to reduce emissions over time. But there has to be an effective cap – and with the Ukrainians and Russians literally creating ERUs out of hot air, there wasn't one. That is why the price dropped to virtually zero.

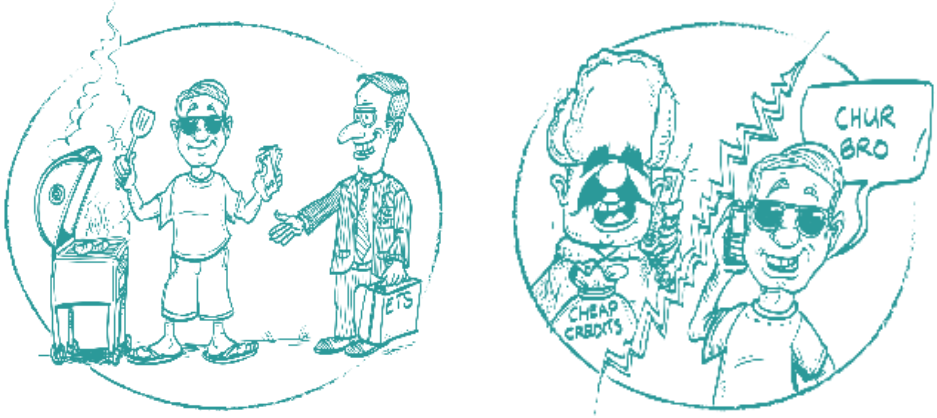
Figure 7: Where New Zealand's ERUs come from



Source: New Zealand Government (2015).[30]

How did this happen? The NZ ETS

How did our Government come to be in possession of so many fraudulent credits? The answer lies with our Emissions Trading Scheme.



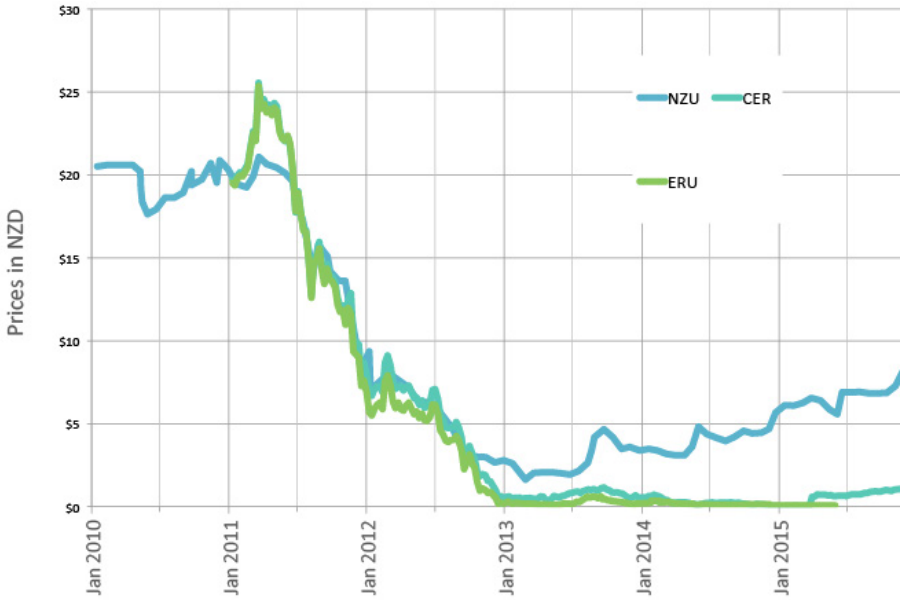
Under the NZ ETS, companies responsible for causing greenhouse gas emissions (e.g. fuel and electricity retailers, and manufacturers) have to report their emissions each quarter and pay an equivalent number of carbon credits to the government. Most sectors entered the scheme in mid-2010, but agricultural emissions are still exempt, so it only covers about half of New Zealand's total emissions.[iii]

The NZ ETS has its own currency of carbon credits called New Zealand Units (NZUs). These are only valid in New Zealand and can't be used by governments to meet their Kyoto commitments. So far there are two ways NZUs are created: (1) the Government gives some out for free to certain 'trade-exposed' companies to cover most of their emissions, so that they only have to buy a small percentage themselves; (2) forest owners can register to receive NZUs from the Government based on the amount of new carbon stored in the trees each year (they also have to pay credits back to the Government if they harvest or deforest).

However, NZUs weren't the only currency that companies could use in the ETS. They could alternatively use any of the Kyoto Protocol offsets bought in from other countries (CERs, ERUs and RMUs). In fact, there were no restrictions at all on how many of these foreign credits companies could use – the only ETS in the world to operate this way. By contrast, the EU's ETS had comparatively tight restrictions from the outset on what proportion of a company's emissions can be covered with offsets. These restrictions vary by industry, but the overall maximum usage from 2008-2020 equates to around 1.6 billion units,[35] or roughly 6% of the total credits needed in this period.[36] RMUs were not allowed at all.

Initially, the lack of a cap on foreign credits in our ETS wasn't a problem as, until around mid-2011, they were all trading at higher prices than NZUs. The ETS was operating basically as planned; companies that needed credits were buying NZUs from foresters, and at a price of over $20 per tonne of CO2, this was providing a decent incentive for landowners to

Figure 8: Carbon prices in NZ 2010-15



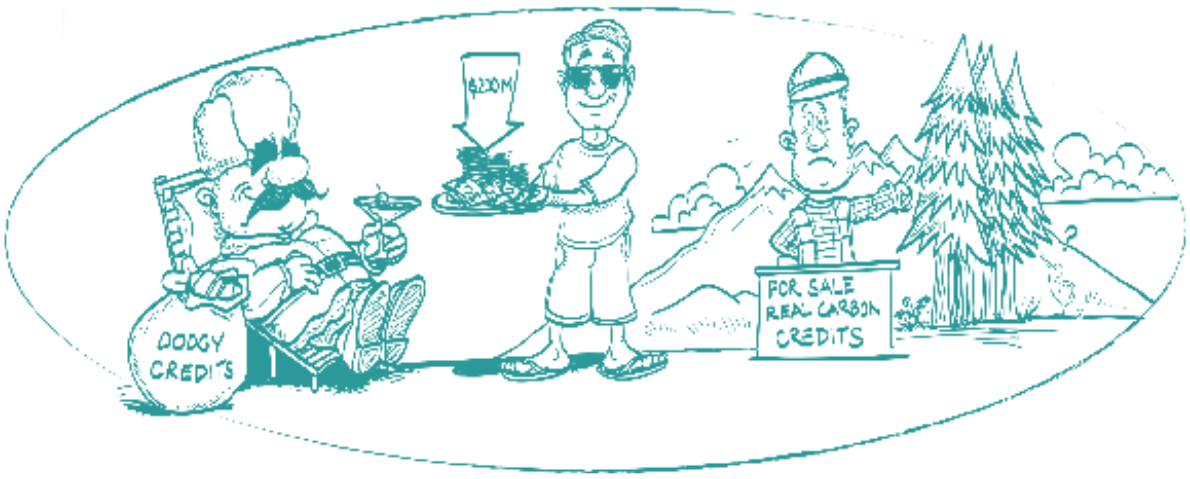
Sources: NZU prices from MFE (2016); [37] CER prices and 2011-12 ERU prices and from Intercontinental Exchange via quandl.com;[38,39] exchange rates from Reserve Bank of New Zealand;[40] 2013-15 ERU prices provided by Carbon Forest Services.

[iii] Actually, in 2009 the National Government introduced a "2-for-1" deal where companies only need to pay one credit per two tonnes of emissions, so it currently only covers about one-quarter of New Zealand's emissions.

plant (and a strong disincentive to deforest and convert land). But when the price of foreign credits started crashing and undercut the NZU price, things turned to custard.

The price crash was driven by several related factors touched on in Chapter 2 – weak demand in the EU due to slow economic growth; growing supply, as issuance of (increasingly dodgy) credits took off; and the anticipation, and then reality, of a further crackdown on use of certain types of credits in the EU ETS. As shown in Figure 8, the price of ERUs steadily collapsed from over NZ$20 per tonne in early 2011 to less than 15 cents per tonne in 2013. Of course, New Zealand companies stopped using NZUs and instead filled their boots mainly with the el cheapo, fraudulent credits from Ukraine – the cheapest of the cheap.

The result – shown in Figure 9 – is that ERUs became the primary currency of our ETS. Overall, from 2010-14, they made up 70% of the total credits used. Since 2012, foresters and companies receiving free NZUs from the Government have just banked these on the assumption they would become more valuable in the future, if and when the flood of cheap foreign credits got cut off. Also evident in the graph is the large bulge in credits surrendered around 2013, as many land owners took the opportunity to get out while the price was rock bottom – some deforested their land and converted it for dairy farming. We discuss these perverse side effects further in the next chapter.



By the time the party was over in mid-2015, we estimate the total amount spent by New Zealand businesses purchasing ERUs was around the $200m mark (see Table 1). This is $200m removed from our economy and sent overseas to criminals for no environmental benefit; $200m that could have been spent here in New Zealand reducing our emissions.

Figure 9: ERU takeover - units used in the NZ ETS 2010-2014

Source: New Zealand Government (2015). [41]

Table 1: Estimated total spend on ERUs by NZ companies

	2011	2012	2013	2014	Total, 2011-2014
Average ERU price	$13.00 *	$4.29	$0.33	$0.18	-
Quantity used in ETS (million)	4.27	27.69	42.35	21.98	96.30
Estimated total spend (millions)	$55.5	$118.8	$13.8	$3.9	$192.0

Sources: 2011-12 ERU prices from from Intercontinental Exchange via quandl.com; 2013-14 ERU prices provided by Carbon Forest Services; quantity used from New Zealand Government (2015).[41]

*For 2011, we averaged the price over the second half of the year only, assuming that the ERUs were all bought after the price cut below the NZU price around the end of June.

The facts are a sad indictment of the NZ ETS, which is apparently our Government's "main tool to reduce emissions". The ETS has had little to no effect on New Zealand's emissions, confirmed by a recent evaluation by the Ministry for the Environment.[37] As we have seen, most of the foreign credits used didn't represent real emissions reductions overseas either. The main purpose the ETS has actually served to date is to enable our Government to indirectly accumulate huge quantities of cheap (and as we now know, fraudulent) carbon offsets, which it intends to use to claim we are meeting our climate commitments for years into the future.

But it's worse. Our Government could have acted to avoid this, and limit New Zealand's use of fraudulent credits before it got out of control. Instead, they repeatedly rejected calls to do so. We've certainly been a party to fraud, the only question is whether we were willing or unwitting participants. This raises the question of whether the Government is culpable or simply negligent.

History of a policy failure

In this section, we will look at the timeline of political events and decisions that impacted which credits were used in the NZ ETS. In Figure 10 below we recreate Figure 8 (showing the prices of NZUs and ERUs) but highlighting key events on the below timeline.

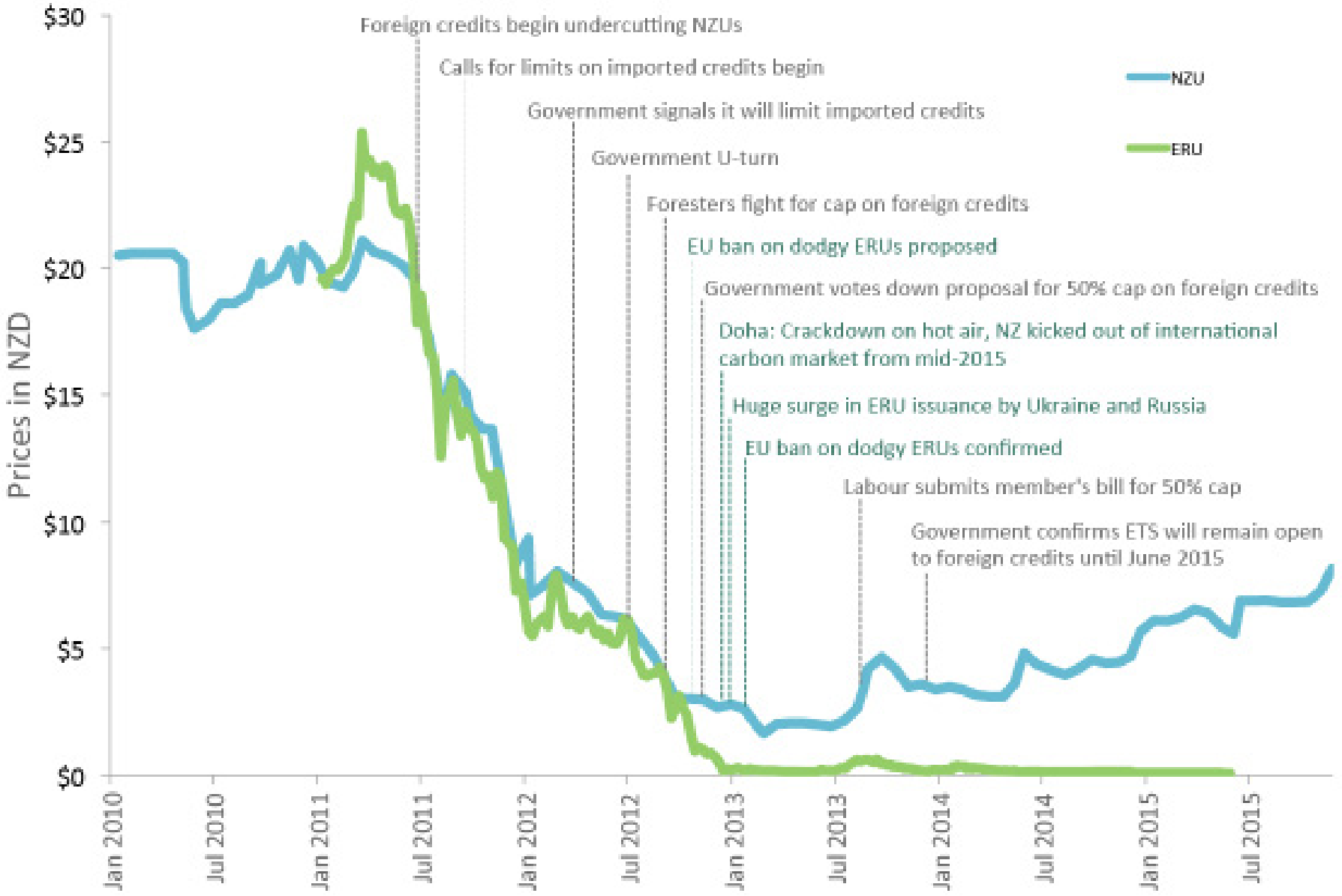
As we have seen, problems in the NZ ETS began emerging in mid-2011 when the price of foreign credits first started undercutting the NZU price at around $20.

Mid 2011 – Government takes early action to protect integrity of ETS

On 30 June 2011, the ETS Review Panel set up by the Government delivered their report (although this wasn't released publicly until September).[42] The Panel raised the risk that certain credits ineligible for use in the EU could "flood the New Zealand carbon market and drive down the NZU price". However, they recommended keeping the ETS open, except to urgently consider whether CERs from particular industrial gas projects should be banned (as the EU and Australia had already announced). The Government followed through and banned them. As the following quote from Nick Smith (climate change minister at the time) shows, it seems there were genuine intentions at this stage to protect the integrity of the ETS:

> "Australia and the European Union have already announced their intention to ban these industrial gas CERs from their emission trading schemes. It's important that New Zealand does the same or we risk becoming a dumping ground for units of questionable environmental benefits."[43]

Figure 10: NZ carbon price history, annotated with key events



Data sources listed in Figure 8 caption. NZ events are coloured grey and international events are coloured blue..

End of 2011 – industry leaders call for limits on imported credits

By the end of the 2011, the price of both foreign credits and NZUs had halved, and forestry industry leaders were calling for the Government to put limits on imported carbon credits.[44] The main concern at the time was CERs – Ukraine and Russia's fun and games with ERUs were only just getting started. As shown in Figure 9 companies had already largely stopped using NZUs in the ETS, and switched to foreign credits instead. That behaviour in itself should have triggered a response from our Government, given the Kyoto Protocol principle that carbon trading should be supplemental to domestic action – we discuss this further in Chapter 5 (see 'Principles schminciples', p. 35).

April 2012 – Government signals it will restrict imported credits

In 2012 the rate of the price crash slowed, but prices kept falling. The Government planned to legislate changes to the ETS following the last year's review. In April, it published a consultation document, which proposed to limit the number of foreign credits in the scheme. The document stated[45]:

> "Consistent with plans in the European and Australian schemes mentioned above, the Government also intends to introduce a mechanism that would allow the Minister for Climate Change Issues to place a restriction on the proportion of international units an ETS participant can surrender to meet its ETS obligations."

On 11 April 2012, Climate Change Minister Tim Groser gave a speech to iwi leaders, where he gave an even clearer signal that the Government would limit foreign credits:[46]

> "The Government also proposes to enable in legislation the introduction of a mechanism that would place a restriction on the proportion of international units a participant can surrender to meet their ETS obligations. Under current settings, there is a serious danger of NZ essentially exporting capital for no good reason resulting in a loss of economic welfare."

That last sentence is illuminating as it suggests either that the minister knew that foreign credits were of dubious integrity, or that he foresaw a situation where the Government ended up with far more credits than it needed to meet our international obligations – or (as has eventuated) both.

July 2012 – Government U-turn, ACT crowing

However, over the next couple of months, something changed and the Government flip-flopped. In July, ACT Party leader John Banks issued a gloating press release in which he took credit for National's change of heart:[47]

> "The ACT Party has scored a win for New Zealand business by negotiating a change to the Emissions Trading Scheme which will preserve the unrestricted importation of overseas carbon units."

Labour's climate spokesperson Moana Mackey later suggested that National had backed down in order to secure Mr Banks' vote for the package of ETS changes.[48]

By the time a bill was introduced to Parliament in August, there was no mention of limiting foreign credits. Minister Groser's cabinet paper on the proposed amendments said:[49]

> "I recommend that we do not pursue Cabinet's agreement in principle to introduce a new power to restrict the number of international units that may be surrendered. This will ensure the ETS price of carbon continues to reflect the international price."

As an aside, the fictional concept of one 'international carbon price' – as if this was a standard international market – was a convenient piece of spin used repeatedly by government ministers to justify the decision. The reality, which they knew, is that countries all set their own rules around carbon pricing, and New Zealand was the only one allowing unlimited use of cheap foreign credits.

September 2012 – Forest owners fight for a lifeline, but lose

A rushed submission process followed, where many parties – including the Parliamentary Commissioner for the Environment and the Climate Change Iwi Leaders Group – again called for the Government to stem the tide of cheap foreign carbon credits. Forestry leaders were not giving up without a fight, and launched a multi-pronged campaign demanding a 50 percent cap on the use of any foreign credits. This was broadly in line with Australia's scheme at the time, and still far more lenient than the EU's ETS. The heads of eight major forestry companies penned an open letter to Prime Minister John Key, asking him to intervene directly to set a cap and "stop the ETS becoming a farce".[50]

Interestingly, former climate change minister Nick Smith continued to take an interest in proceedings. He wrote to PF Olsen chief executive Peter Clark in response to the open letter, expressing sympathy towards the foresters' concerns.[51] In his letter, Dr Smith stated:

> "The issue here, in my view, is not so much the bill, but the problems developing in the

> international market for carbon and how these interact with our own domestic scheme. […] There are also real questions about the environmental integrity of a number of units now appearing in the New Zealand ETS."

Ultimately, these concerns fell on deaf ears. The select committee report on 17 October stated that:[52]

> "We are aware of concern about [unlimited use of foreign credits], particularly about the low price of international units, which reduces the price of NZUs and thus the incentive to reduce domestic emissions, and about the environmental integrity of certain types of international units. We considered the possibility of a restriction on international units, possibly along the lines of the 50 percent restriction that applies in Australia."

However, the committee did not recommend any changes to the legislation on the grounds that it in fact already gave the minister the power to place "quantitative or qualitative restrictions" on the surrender of units. In other words, the minister could apparently cap the use of foreign credits whenever they wanted, but Minister Groser never took this opportunity.

At the bill's second reading on 25 October, Labour's Moana Mackey put up a proposed amendment to enact a 50 percent cap on foreign credits in the legislation.[53] This and other 35 proposed amendments to strengthen the ETS were all voted down, and the bill was passed on 8 November with the support of ACT and United Future.

By this stage, the price of ERUs had fallen to around $1 per tonne and the ETS was running almost entirely on these and other foreign credits. Shortly afterwards, Minister Groser proposed another ban on credits from some particular project types to "maintain the integrity of the ETS". It would cover ERUs from the same type of industrial gas projects from which CERs were already banned, and credits of either type associated with hydro projects.[54] The EU had already announced a ban on all of these back in 2011 (although it did not enter force until 2013).[12] The Government followed through, but this did nothing to stem the overall flow of foreign credits into New Zealand. It was likely a sop to all those who had called for a quantitative limit, to give the appearance the Government was doing something. Importantly though, it further highlights that the Government was aware of concerns around environmental integrity and was looking into these issues at the time.

December 2012 – Doha, the nail in the coffin

There would be one very significant development before 2012 was through. At the UN climate summit in Doha in December, the Government announced that New Zealand would not commit to the Kyoto Protocol's second commitment period – instead our 2020 target would be voluntary rather than legally binding. In response, countries voted to shut New Zealand off from using any Kyoto offset credits in CP2 if we weren't in.[55] This punishment took the Government – who had been thinking we could have our cake and eat it too – by surprise. What it meant was that the door for New Zealand to buy foreign credits would now close in mid-2015 (at the end of the 'true-up period' when credits from CP1 could still be traded).

It is from this point that any government concerns about the integrity of the ETS, and the credits companies were buying, seemed to go completely out the window.

We saw in Chapter 2 ('ERU explosion', p. 8) that the end of 2012 saw a simultaneous crackdown by the UN and the EU on ex-Soviet countries' hot air and dodgy ERUs. This in turn led to a huge dump of credits being issued by Ukraine and Russia, as corrupt players retaliated and sought to maximise profit while they still could. It is not credible that the Government was not well aware of these developments. This time, though, it would not follow the EU by tightening up our ETS; instead New Zealand chose to become a dumping ground for Ukraine and Russia's fraudulent credits.

The price of ERUs tumbled even further, to new lows of less than 15 cents per tonne. Meanwhile, following the Doha decisions the NZU price held firm at around $2 per tonne – the higher price reflecting the certainty that, unlike ERUs, these units would still have value beyond 2015. It was crystal clear that without any changes to the ETS, ERUs would continue to be the credit of choice for New Zealand polluters right through until 2015.

2013 – Government locks the floodgates open

Throughout 2013, foresters and iwi doggedly kept up their campaign for limits on foreign credits. In August, Moana Mackey submitted a member's bill trying once again to amend the ETS legislation with a 50% cap on the use of foreign credits.[56] It was never drawn from the ballot.

Finally, in December 2013 – a whole year after Doha – the Government put an end to any uncertainty when it announced that companies could continue using unlimited foreign credits all the way until 31 May 2015 (the end of the Kyoto true-up period).[57] This was a conscious choice to leave the gate open as long as possible. Sure enough, the cheap, fraudulent credits from Ukraine and Russia that no-one else wanted kept flooding in.

Is our Government culpable?

It is plausible that in 2011, when ERUs first started entering the NZ ETS, our Government was unaware of all the issues. At that time, discussions of environmental integrity mainly focused on CERs, and the hijinks in Ukraine and Russia were yet to really take off. But later on – certainly by early 2013 – it would have been virtually impossible for the Government not to at least be aware that ERUs had serious integrity problems. By that stage, while the solid proof in the 2015 Stockholm Environment Institute study was yet to come, the following things should have all been clear to the Government:

- The self-audited ERU issuance process provided a clear pathway for Eastern European countries to launder their hot air surplus ('Laundering hot air', p.7);

- The EU had moved to further restrict the use of ERUs in their ETS, which prompted a huge and sudden surge of ERUs to be issued by Ukraine and Russia (both countries notorious for corruption);

- The ERUs were now the main currency in the NZ ETS – virtually all of them coming from Ukraine and Russia – and set to stay that way;

- Domestically, the price crash to near-zero levels had destroyed any incentive for emissions reductions or tree planting, and was causing a range of perverse effects.

In the face of all this information – and alongside strong, concerted pressure from foresters, iwi and others to cap the use of foreign credits in the ETS – the Government's steadfast refusal to do anything about it is telling. And surely, if they were to keep allowing unlimited foreign credits, basic prudence would have dictated they went to some lengths to ensure the credits that companies were buying actually had integrity. If they had gone looking, they may have for example found a November 2012 report by the National Ecological Centre of Ukraine raising many similar issues that were to be highlighted in the 2015 Stockholm Environment Institute paper.[58]

As part of our investigation, we spoke with several current and former carbon market participants. They all concurred that ERUs had a dodgy reputation, with widely held suspicions that many of them were junk – although perhaps not to the full extent that was later revealed. As one source said:

> "Anyone who invested time in reading about what was transpiring in the ERU market would have been aware that there were questions about the environmental integrity of most of these units."

On the subject of whether ministers would have been aware of the EU's moves to further restrict ERUs, they said:

> "I don't see how it would have been possible for the Government not to be aware of these concerns. The discussion was very live in Europe, and there is a team at the Ministry for the Environment whose role to my understanding has been to stay abreast with developments in the international carbon market."

Sources also informed us that at least one large emitter refused to purchase any ERUs – despite them being the cheapest units available – purely on the grounds of integrity.

Finally, regular market updates by carbon traders OMFinancial provide further proof that the EU ETS developments were picked up on in New Zealand, and the fraudulent nature of Ukraine and Russia's ERUs quite openly discussed. To give two pertinent examples:

- "The EU is considering imposing further controls over what can be used in EU ETS from next year, in particular ERUs. This move, while the exact details are yet to be worked out, is really designed to stop the likes of Russia printing ERUs via Track one process [i.e. self-audited] and basically flooding the market." (14 December 2012).[59]
- "The only problem with this is that we have over 16 months of trading to run by allowing 100 per cent use of offsets, in particular ERUs. We are effectively allowing the Russians and Ukrainians to monetise their supply of hot air AAUs and in addition there is a fiscal cost to the country." (9 August 2013).

Many traders and carbon market participants clearly understood what was going on at that time. It beggars belief that the Government did not.

So is the Government culpable as a partner in the crime? The most generous interpretation of facts available is that the Government was reckless and negligent in its management of the ETS, by failing to put any restrictions on the use of credits that it knew were – at best – dubious. An equally credible interpretation is that they were a willing party to the crime, by condoning and approving the use of ERUs, despite knowing that most were probably fraudulent.

Complicit in climate fraud

Recall that the Government seemed to have genuine intentions early on to maintain the integrity of the ETS, and at one point was strongly considering putting a cap on the use of foreign credits. What caused them to abandon their principles? Pressure from the polluter lobby and the ACT Party seemingly played a role, but there may be an additional explanation. The Doha decisions in 2012 meant New Zealand would be cut off from international carbon markets in 2015. At the time, the Government's emissions projections had it headed for a deficit in meeting the 2020 target.[61] Rather than contemplate taking action to cut New Zealand's emissions, perhaps the Government instead saw the opportunity to keep filling its boots with enough cheap credits to cover it through to 2020.

Whether the credits had any environmental integrity – or were simply hot air – was apparently not a concern.

Regardless of precisely what ministers knew and believed about ERUs, and when, they are certainly well aware of their fraudulent nature now. This is proven in briefings obtained under the Official Information Act about the 'retirement strategy' for meeting New Zealand's Kyoto commitments. The following excerpt is particularly illuminating: [62]

> "New Zealand's use of imported Kyoto units to represent over-achievement of its CP1 target could be open to criticism by both international and domestic commentators, for two reasons:
>
> a) Most of the imported Kyoto units were bought and surrendered after international prices for CP1 units had dropped to very low levels. There was very little other international demand for CP1 units once the EU Emissions Trading Scheme was closed to CP1 units and once it was clear that all Annex 1 Parties with CP1 targets would be able to meet them with little or no further purchasing.
>
> b) Most (97 million) of the imported units were ERUs, which were bought and surrendered by ETS participants mainly in 2012-15. ERUs represent emission reduction from projects in Annex 1 Parties. Most of the ERUs now in New Zealand are from Ukraine, and come from projects that Ukraine registered and approved just in time for the units to be issued in 2012-13. The abatement claimed for these projects (in CP1) was therefore almost entirely retrospective. No international review was required. This will affect perceptions of environmental integrity."

The documents prove that not only are Ministers aware, this was a deliberate consideration in deciding to use the ERUs as soon as possible to try and avoid being found out. As we explore further in the next chapter, the Government is knowingly exploiting these fraudulent carbon credits to avoid taking real action to cut New Zealand's emissions.

4. The consequences of climate crime

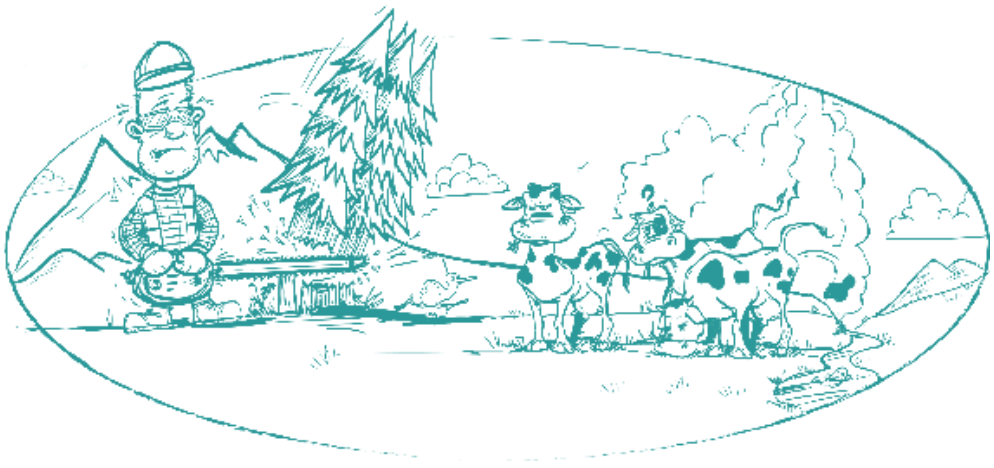
Subsidising ‘dumb and dirty’ growth

The flood of cheap carbon credits into New Zealand has had a number of disastrous local consequences, which we explore in this chapter. There have been winners and losers. Foresters who planted in response to the early carbon price signal, and iwi, were shafted through the loss in value of New Zealand ETS units. Meanwhile polluters in New Zealand benefited through a collapse in the price of emissions, while some even creamed off profits by exploiting the price difference between different types of carbon credits (arbitrage).

Collateral damage

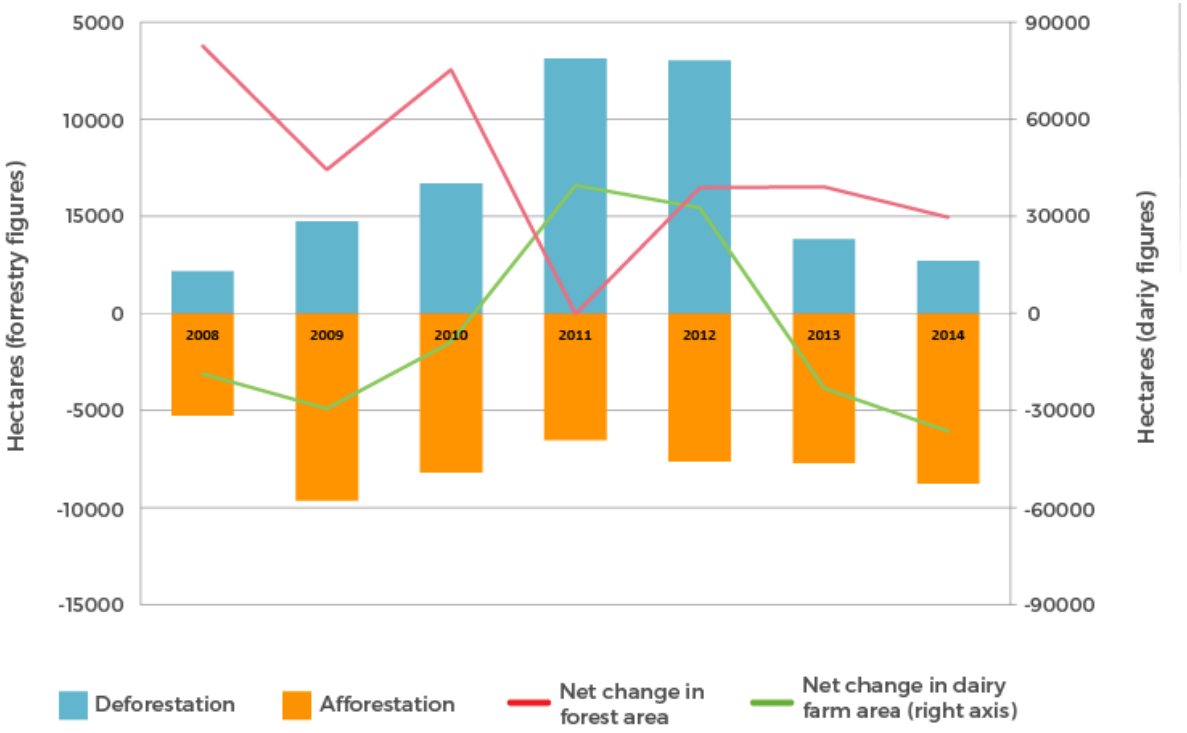
Early on, the price signal was working as intended to incentivise more tree planting and less land-clearing – up to 2011, annual afforestation was steadily growing, and deforestation reducing. Then, as we saw in Chapter 3 (Figure 10), the price of foreign credits underwent a precipitous decline from over NZ$20 in mid-2011 to less than 15 cents in 2013, taking the price of New Zealand Units (NZUs) with them (until the prices diverged at the end of 2012).

The price collapse knee-capped the nascent carbon forestry industry and burnt investors who had planted on the assumption of a steady carbon price. It also cost Māori several hundred million dollars, as many iwi had received NZUs as part of their Treaty settlements, leading to threats of a $600 million Waitangi Tribunal claim against the Government.[63]



As a result of the price collapse, new planting plummeted and the situation reverted to net deforestation (Figure 11). Many forest owners chose to take the opportunity to get out of the ETS – paying their deforestation liability with the dirt cheap ERUs – so that they can convert their land to agriculture. The regions most affected were Waikato, Canterbury and Bay of Plenty.[64] Most of this land went to dairy farming – including the infamous Wairakei Pastoral Estate near Taupo, managed by the State Owned Enterprise Landcorp. These changes, which will significantly increase emissions, were ‘offset’ by fraudulent credits that don’t represent real emissions reductions.

Figure 11: Afforestation, deforestation, and net change in dairy farm area 2008-14

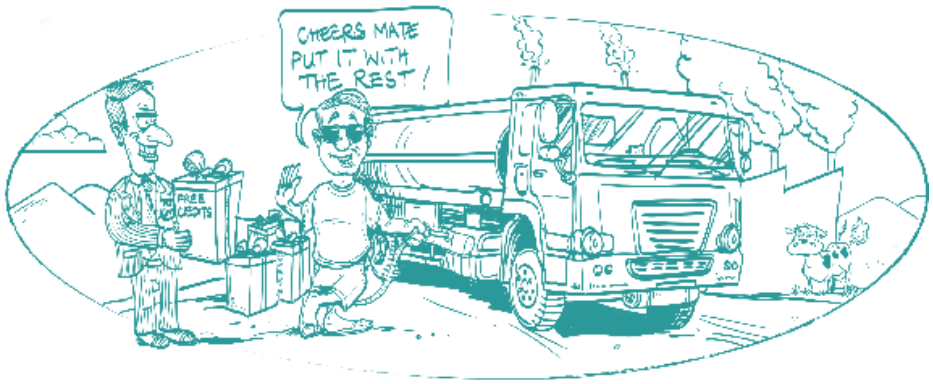


Sources: forestry data from MFE (2016);[37] dairy data from Dairy NZ (2015).[65]

Profit from pollution

For polluters, the collapse in the carbon price to near-zero levels obviously destroyed any incentive to directly reduce their emissions. While Tony Abbott was loudly and proudly scrapping Australia's carbon tax, New Zealand's price on carbon had been effectively removed by stealth.

It gets worse. Due to the Government's mismanagement, the ETS was actually paying polluters to pollute.



Under the polluter-friendly settings of the ETS, industries deemed to be "trade-exposed" (i.e. they export a lot) get a free allocation of NZUs to cover most of their emissions – so they only have to pay for as little as 10% of the pollution they cause. As we saw in Chapter 3, from 2012 on these companies largely stopped using these free units and instead handed over the dirt cheap ERUs for as long as they could (Figure 9). They were largely banking their NZUs for later use, realising their value would go up. This is called arbitrage, and it means these companies were actually deriving profit from their pollution at the taxpayer's expense. The more they polluted, the more money they could make from this loophole.

So in summary, these companies win twice from this deal. Not only have they cut costs by buying cheap fraudulent foreign credits, they will also profit from using or selling the New Zealand units in a few years when they are worth more. The Government has stood by and let them get richer from doing nothing useful, just trading in fraudulent credits with no environmental benefit.

We've seen how foresters were punished by the carbon price collapse and fought hard (but unsuccessfully) to get the Government to intervene by capping foreign credits. Well ironically, the cheap foreign credits exposed another arbitrage loophole, which many foresters exploited to get their own back. Post-1989 foresters, who voluntarily join the ETS, can also decide to opt out by paying back all the credits they received upon registering. However, the rules allowed them too to use 100% foreign credits when they deregistered. So just like the polluters, they could simply hang on the NZUs and pay the bill with ERUs at a few cents per tonne. Many decided to give up on the ETS and get out while it was cheap, with some moving to deforest their land, as discussed in the previous section. But here's the kicker: having exited the scheme, foresters could then reregister, receive a new payment of NZUs, deregister again with a payment of ERUs, and so forth, stockpiling those NZUs for future sale. They were literally printing money – although given how they had been treated by the Government, you could call it compensation. This behavior contributed to the huge jump in units surrendered through the ETS in 2013 shown in Figure 9.

Unlike with the other rorts going on, the Government actually acted to stop this one, eventually (sources say Government was advised this was occurring as early as 2012). Under the cover of the 2014 Budget, they passed legislation under urgency to remove the loophole by prohibiting foresters from using any foreign credits. This took the forestry sector completely by surprise and rubbed salt into their still raw wounds, unjustly punishing some who had actually been preparing to exit the ETS in good faith. They rightly questioned why forestry had been singled out, while the Government was still allowing polluters who received free NZUs to continue rorting the system.[66,67]

Price-gouging

Electricity and fuel companies – which aren't trade-exposed and don't get any free credits – missed out on all the arbitrage fun. However, it appears some of them found another way to cream some profit out of the situation: price gouging. These companies are able to simply pass the carbon cost onto consumers. When the ETS came into effect, fuel and electricity prices were boosted with the new carbon price as the justification.[68] But as the price fell, it was relatively easy for a company to overcharge customers by lagging behind with price adjustments.[69] Fuel retailer Gull noted that this was happening in its submission on the 2012 ETS review.[70] The alleged price gouging was raised with ministers, government departments and the Commerce Commission, all of whom took no action.[71]

If this was occurring, it is particularly shocking given that the Government's main publicly-stated reason for refusing to limit foreign credits in the ETS was to "[not] raise costs for businesses and households".[72] The Government refused to investigate whether the lower prices were in fact being passed on to households and businesses, or simply going into the pockets of a small number of electricity and fuel retailers.

The effects of unlimited access to foreign credits in the ETS described above have been utterly disastrous. Worse, it was all entirely avoidable, and the Government was told repeatedly about the multiple rorts taking place. This is policy failure writ large. However, the effect we would like to focus on most of all, in the following chapter, is what the Government plans to do with these credits now that they are in its possession.

5. New Zealand's climate con job

How the Government is living off the proceeds of crime

We saw in the previous chapter how polluters in New Zealand benefited hugely from the unrestricted access to cheap and fraudulent carbon credits. However, the main beneficiaries of all this are arguably the politicians. The Government is now seeking to exploit its stockpile of hot air credits to shore up our national climate change obligations to 2020 – and potentially beyond – without lifting a finger to reduce emissions. They are unambiguously, climate cheats.

The plan to meet our commitments

In December 2015, the Government released reports laying out the latest emissions projections and its proposed plan for meeting our targets through to 2020.[5,73] The reports confirm what had already been signaled: the Government wants to exploit all of the criminally manufactured, imported carbon credits in order to claim we are meeting our international commitments well into the future.

How the Government plans to do this is represented visually in Figure 12 with numbers provided in Table 2 and explained below.

Figure 12: How the Government plans to meet our emissions targets to 2020

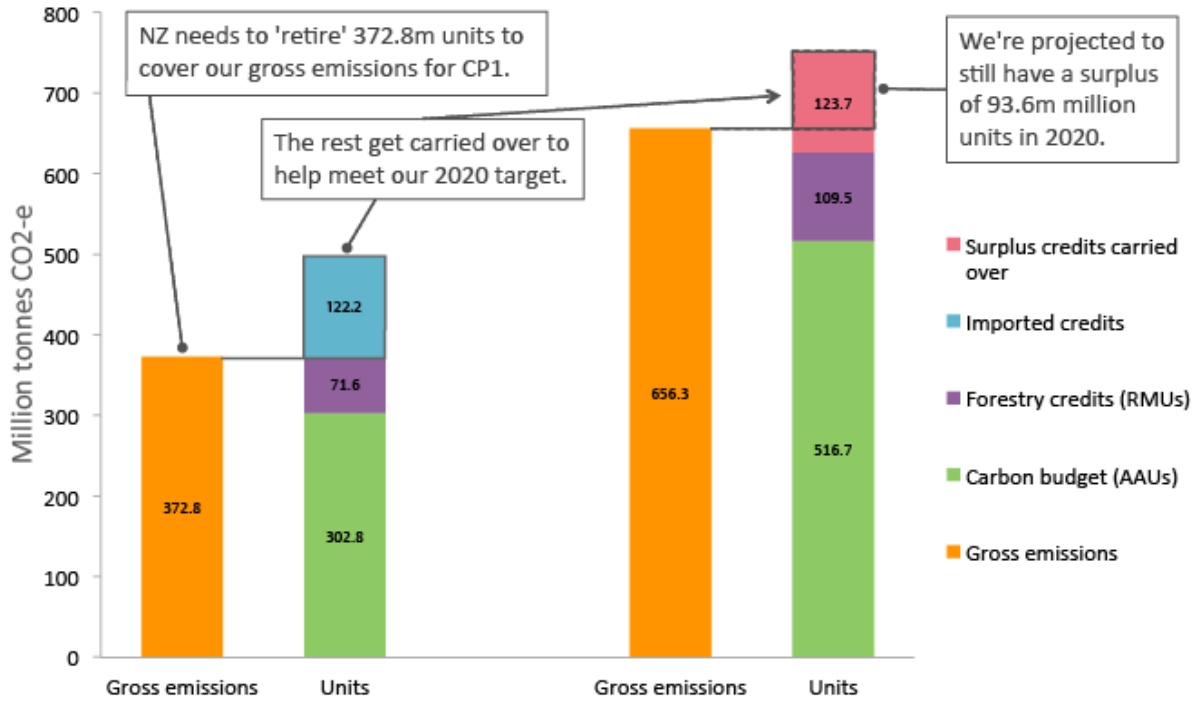


Table 2: How the Government plans to meet our emissions targets to 2020

All quantities in millions	CP1, 2008-2012	Total, 2011-2014
Carbon budget (AAUs)	302.8	516.7
NZ forestry credits (RMUs)	71.6	109.5
Imported credits (ERUs + CERs + RMUs)	122.2	0
Surplus credits from previous period	0	123.7
Total credits	**496.6**	**749.9**
Gross emissions (total credits required)	372.8	656.3
Surplus/deficit	**+123.7**	**+93.6**

Source: New Zealand Government (2015) [5,72]

2008-12

First, the 2008-2012 period (CP1). To represent the target we took on – capping our emissions over the period at 1990 levels – we have 302.8m AAUs (Assigned Amount Units) assigned to us by the UN (the green bar). New Zealand's actual greenhouse gas emissions over the period were significantly above this at 372.8 million tonnes CO2-e (orange bar). In order to meet our commitments, the Government has to 'retire' Kyoto-compliant credits equal to New Zealand's gross emissions for the period. So, we need 70m tonnes of additional permissions.

Our Kyoto emissions target is actually for 'net' emissions, meaning that we get credits called Removal Units (RMUs) for carbon soaked up by trees. New Zealand was issued 71.6m RMUs based on official measurements (the purple bar) – a few more than we need to account for the 70m overshoot.

So thanks to a big forest planting boom that occurred in the 1990s we've accounted for all of our 372.8m tonnes of emissions. We have squeaked home, with a wafer-thin surplus of 1.6m credits.

But wait, there's more: now add in all the foreign offset credits that the Government has inherited through the ETS. The Government holds 97.0m ERUs (the clearly fraudulent ones), 16.1m CERs, and 9.0m RMUs purchased from other governments (the potentially dodgy ones). That's a total of 122.2m imported credits (the turqoise bar). While most of these credits were purchased after 2012, they represent emissions reductions (in theory) over 2008-2012 and are issued for compliance in that period.

So with those purchases, the Government has a total of 496.6m credits that can be used to comply under Kyoto CP1 – a substantial surplus of 123.7m (shown by the dotted box). This surplus is almost entirely made up of cheap foreign credits, most of them the fraudulent ERUs from Ukraine and Russia. Given we didn't need then to justify the emissions from our CP1 period, the Government plans to 'carry over' all these surplus credits to help meet its

target for the next period from 2013-2020. In other words, the intention is to continue to live off the proceeds of crime.

Recall that the Government refused to join the second commitment period under the Kyoto Protocol, meaning our 2020 target is only voluntary rather than binding. However, the Government has said it will apply the same Kyoto rules to meeting the target.

Under Kyoto, there are fairly tight restrictions on carry-over of offset credits (presumably to try to prevent the kind of thing our Government is doing). RMUs cannot be carried over at all, while New Zealand would be allowed to carry over a maximum of 7.7m ERUs and 7.7m CERs.[61] However, there are no limits on carryover of AAUs, so the Government's cunning plan is to simply use all the foreign credits in the first commitment period (CP1), and carry over AAUs instead – mainly because it knows the ERUs are dodgy and wants to get them off our books as soon as possible.

2013-20

Let us look now at the numbers for the 2013-2020 (CP2) period. The carbon budget consistent with the target (-5% on 1990 levels by 2020) is 516.7m tonnes (the green bar). According to the Government's latest projections, based on current policies, expected net forestry removals for the period are 109.5m tonnes (the purple bar). Meanwhile, gross emissions are projected to continue growing to total 656.3m tonnes (the orange bar). Without the carried-over credits, New Zealand is on track to exceed the target by 30.2m tonnes. To avoid that overshoot, the Government would need to urgently implement some policies that actually reduce emissions and incentivise tree planting.

However, when we add in the 123.7m carried-over credits (the pink bar), the problem disappears – and then some. The Government would only need about a quarter of these

credits to 'cover' the projected shortfall between emissions and the target, leaving a remaining 'surplus' of 93.6m tonnes in 2020.

Let's summarise what we have seen. The Government has received huge quantities of foreign carbon credits through the ETS, by deliberately refusing to restrict our polluters from using them. Most of these credits are ERUs from Ukraine and Russia, which have subsequently been shown to be fraudulent – the Government knows it, and should have been aware of this since early 2013. Nevertheless, it still intends to exploit all of these credits to help it – on paper – meet New Zealand's climate commitments until at least 2020. Meanwhile our actual emissions keep growing – we're not pulling our heads in at all.

This strategy for meeting our commitments is deeply unethical, and ought to be of serious embarrassment to our country. It is akin to a con job, dependent on the proceeds of fraud and organised crime. To make matters worse, the Government is also flouting the rules of the Kyoto Protocol, and we're being shown up by several other countries taking a principled stance.

Principles schminciples

Regardless of the integrity of the credits, New Zealand's actions are also an apparent violation of a Kyoto Protocol principle known as 'supplementarity'. In a nutshell, this means that buying carbon credits from other countries should be secondary to reducing emissions at home. As Article 6.1 in the Protocol states:[6]

> "The acquisition of emission reduction units shall be supplemental to domestic actions for the purposes of meeting commitments under Article 3."

The EU operationalised this in its ETS with limits on the use of credits from outside countries. However, there is no agreed interpretation of exactly how 'supplemental' should be quantified.

Nonetheless, New Zealand is surely flouting any reasonable definition, with the vast majority of our 'reductions' claimed from dodgy foreign credits rather than domestic actions. In fact, because the Government intends to exploit all the credits while it still can, New Zealand's Kyoto 'true-up' gives the bizarre outcome that foreign credits technically account for more than 100% of our hypothetical emissions reductions. This will no doubt raise eyebrows as our report is scrutinised by the UN and other countries over coming months.

‘Pretty legal’

Given the Government refused to participate in the second commitment period of Kyoto and would not commit to a legally binding 2020 target, experts have questioned the legal status of New Zealand carrying-over Kyoto credits at all.[74] In the world of international negotiations, concepts like ‘legal’ are more shades of grey than black and white. Nevertheless, the Government’s plan is undoubtedly against the spirit of the Kyoto agreement. The carry-over rule was meant to be so that countries would be rewarded if they over-achieved their emissions reduction targets – not for countries to exploit by loading up on cheap, fraudulent credits and using these to offset emissions growth for years in advance.

Our Government wants to have its cake (accumulate the proceeds of crime) and eat it as well (be absented from any binding targets). We are truly a climate change pariah, exploiting the weaknesses in the embryonic international cooperation for our own gain. Such behaviour is self-serving in the short term, but reputationally damaging and could still have serious repercussions in terms of reprisals once other countries wake up to what we have done.

Other countries cancel their surpluses

The Government’s dodgy carry-over strategy looks even more morally bankrupt following six major countries declaring that they will cancel their surpluses. At the Paris climate summit, Denmark, the UK, Germany, the Netherlands and Sweden jointly announced that they will cancel surplus credits – a total of 635 million tonnes between them – rather than carrying them over as New Zealand is doing.[75] The latter three countries also committed to cancel any surplus credits accruing in the second commitment period. The countries said: “By cancelling surplus units we hope to send a strong positive signal of support for an ambitious global climate agreement here in Paris.” Separately, in its true-up report, Norway quietly revealed its plans to cancel 32.9 million surplus credits.[76]

The long con?

The projected 'surplus' remaining in 2020 (of 93.6 million credits) raises one last important question: will the Government seek to carry this over, and continue exploiting the fraudulent credits in meeting New Zealand's 2030 target? Regardless of how a possible carry-over is framed or accounted for, the surplus only exists as a result of all the foreign credits hauled in through the ETS (remember, without them we are facing a deficit in 2020). The Paris Agreement was silent on any rules around carry-over – details like this are to be worked through in the coming years. The Government has not made any statements on the matter neither, but given past actions it would not be too surprising if it sought to try its luck. Who says crime doesn't pay?

The outlook beyond 2020 is currently bleak given New Zealand's reliance to date on forestry credits from commercial crop forests planted in the 1990s, in addition to pigging out on cheap foreign credits. Because the stored carbon must effectively be 'paid back' on harvest, crop forests only provide a temporary fix – like putting the bill on the credit card. When the 1990s forests come due for harvest over the coming years – known as the 'wall of wood' – the forest sector is poised to turn from a net sink to a net source of emissions. If current policy inaction continues, we may need all the help we can get to meet even the relatively weak 2030 target the Government has set. Exploiting the legacy of the fraudulent credits may just be too tempting for weak-willed politicians to ignore.

6. It's the putting right that counts

Conclusion and recommendations

This report has established the following facts:

- One type of Kyoto carbon credit (the ERU) was overcome by fraud and corruption in Ukraine and Russia. Virtually all of the credits issued by these countries are 'hot air' – they do not represent true emissions reductions. (Chapter 2)

- New Zealand has purchased a huge, disproportionate amount of these Ukrainian and Russian credits through our Emissions Trading Scheme. This was due to deliberate decisions by the National-led Government to – unlike any other country – continue allowing unlimited use of these and other foreign credits, until we were eventually ordered to cease and desist in mid-2015. (Chapter 3)

- Our Government now plans to knowingly utilise all these fraudulent credits in order to claim we are meeting our international obligations through to at least 2020. Meanwhile our actual emissions continue to grow in excess of our targets. (Chapter 5)

We have also seen the other associated disastrous outcomes of the Government's handling of the ETS: devastation of the forestry industry and encouraging wholesale conversions of land to dairy; sending some $200 million overseas to dodgy dealers for no benefit to the climate; and as a consequence, perversely facilitating some companies to profit from their pollution at the expense of taxpayers and consumers (Chapter 4).

Carbon trading is a good idea in principle, but only if we can be sure that the credits have integrity and result from real emissions reductions. The Government should have known for several years now that the credits we were dealing in did not meet that condition. Regardless of what they knew then, we certainly know now.

What the Government plans to do, by knowingly using fraudulent credits to avoid taking real action to reduce our emissions, is simply wrong. Following through with this plan will tarnish our international reputation of being clean and green, reputable and free of corruption. It will confirm what is already clear: we are nothing more than climate cheats – willing accomplices to environmental crime.

The Government is now working hard to establish links to new international carbon markets for the post-2020 period. It has made our 2030 target entirely conditional on unrestricted trade in foreign credits. But why should anyone trust us based on this appalling track record? We risk undermining not only our own access, but also the international community's faith in carbon markets as a viable solution at all. For this reason, too, the Government must do the right thing and take action to restore our integrity. We need to show we will not accept or exploit carbon credits generated by fraudulent, corrupt activities.

What should we do?

The Morgan Foundation has three recommendations to get us out of this mess.

Recommendation 1: Dump the junk – cancel all of the ERUs held by the Government.

This one is obvious. The Government should voluntarily cancel all of the 97 million ERUs it holds. If it is too late in the Kyoto true-up process for this to happen, the Government could instead cancel an equivalent number of the AAUs it currently plans to carry-over and use towards the 2020 target.

According to the official emissions projections we presented in Chapter 5, even if the ERUs were cancelled, the Government would actually still hold almost enough other credits to meet our 2020 target without further action. On current projections we only face a shortfall of 3.5m tonnes of carbon – this would be easy to achieve as long as the carbon price soon rises above $15 per tonne to encourage forestry planting.

This suggests the Government has little to lose from cancelling the ERUs, other than to protect against the risk that New Zealand's emissions grow more than projected by 2020. Cancelling the ERUs would however confirm that New Zealand will not attempt to carry over credits again after 2020 to help meet our 2030 target.

Recommendation 2: Burn the bank – strengthen the ETS and freeze companies' free allocation of NZUs for a year to clear the backlog of banked credits in the ETS.

We saw in Chapter 4 that companies receiving free allocations of NZUs from the Government (those in 'trade-exposed' industries) largely held onto these free credits and used dirt cheap ERUs instead from 2012 on. This means they have profited from their pollution, and now have a bank of credits to use over the coming years, which will suppress demand for new tree planting and slow the return to stronger carbon prices.

The Government needs to strengthen the ETS as soon as possible to ensure the price rises above at least $15 – the level where foresters will start planting. Firstly, it should ditch the "1 for 2" deal on carbon credits (where companies only have to surrender one unit per two tonnes of emissions) immediately. Secondly, companies that received free allocations will have enough of a backlog to fully cover their emissions liabilities for between 2-13 years. Rather than continuing to give them more free credits while they still have the backlog, the Government should freeze their free allocation for one year in 2017. This would burn through most of that bank and undo some of the damage of allowing in unlimited foreign credits over the last four years.

Recommendation 3: Keep it clean – keep the ETS closed to foreign credits until we can be certain they have integrity.

New Zealand is now shut off from trading any Kyoto carbon credits, which means we are out of the game until at least 2020. Beyond that, the Government hopes to regain access to international markets and open the ETS back up. Presuming it is successful, we can't risk a repeat of the catastrophic failure we have seen so far. We should only open the ETS up to international trading if we can be sure the credits represent real emissions reductions and there is a high degree of oversight and transparency.

One idea that has promise is to develop direct deals with certain developing countries where we are closer to the action (for example, Pacific Islands) and can personally scrutinise and audit projects. If we intend to get back into international markets, we should spend the next four years developing bilateral deals like this, and robust mechanisms with real integrity.

New Zealand is an innovative nation. Imagine what we could achieve if we channeled that innovation into reducing emissions, rather than focusing our energies on fiddling the system and finding ways of evading our obligations. We might even not need to purchase overseas credits at all. We shouldn't be subsiding dumb and dirty growth, and certainly shouldn't be doing dodgy deals in fraudulent credits with corrupt foreigners.
We're better than that.

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