



# New Zealand's Climate Change Targets, Projections, and Liabilities

**New Zealand plans to meet existing commitments to reduce emissions largely through creative carbon accounting. It will make a third emissions pledge in 2015 and this one will cost: the Treasury advises the bill could range from \$3 billion to \$52 billion. Tackling the actual problem of rising gross emissions will require Carbon Budgeting.**

## Three Targets, No Emissions Reduction Plan

New Zealand has two emissions reduction commitments:

- **2008 to 2012:** A return to 1990 emissions levels, and
- **2013 to 2020:** A 5% reduction on 1990 emissions levels.

It also targets a 50% reduction on 1990 emission levels by 2050.

However, the country has no low-carbon development plan for meeting these targets, as required under a 2010 UN agreement.<sup>i</sup>

## Government Policies Cut Gross Emissions by Half a Percent

The Emissions Trading Scheme (ETS) is the main tool the government relies on to influence emissions. It started as a weak scheme that imposed little penalty on polluters - cutting gross emissions less than 1% - but was scheduled to ramp up. Instead, in 2012 the ramp was removed through a change of law and the carbon price was allowed to fall to below \$1/tonne of carbon.<sup>ii</sup> In consequence, Environment Ministry projections are that:<sup>iii</sup>

- **In 2020**, gross emissions (those from fossil fuels and agriculture) will be just 0.6% lower than if the government had taken no action on climate change.
- **In 2030**, gross emissions will be just 0.4% lower than if the government had taken no action.

## Agriculture the Big Driver of Future Emissions Growth

Gross emissions have risen 26% since 1990 and are officially projected to be 42% above that benchmark by 2030. While energy use has been the biggest driver to date of this increase, it is agriculture that dominates the future growth of emissions.<sup>iv</sup>

- Three quarters (77%) of the growth in emissions between now and 2030 is projected to come from agricultural gases (essentially dairying). Agriculture pays no charges for its 49% share of total emissions now, or in 2030.<sup>v</sup>
- Additional emissions from energy will make up only 15% of the total growth.

## Kyoto Target Overshot by 20%

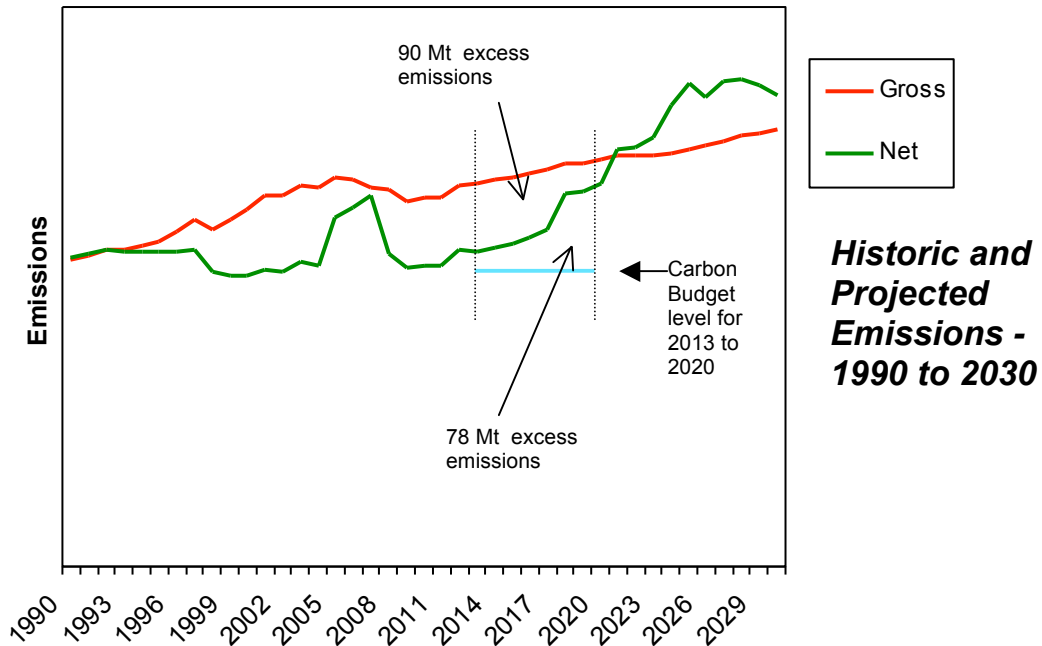
For the first commitment period from 2008 to 2012, New Zealand agreed under the Kyoto Protocol to lower emissions to 1990 levels, but:

- Gross emissions were 20% over the target for the period.<sup>vi</sup> That is, they were 64 megatonnes of CO<sub>2</sub> equivalent (Mt of carbon) above the target. New Zealand instead plans to meet its commitment using credits issued for the carbon absorbed by pre-existing crop forests.
- However, while those trees are absorbing carbon today, they are planned to be cut down in the 2020s and the bulk of the carbon will then be released again. So counting credits from crop forests largely just delays the time when the overshoot needs to be reconciled. The bill goes on the Visa card.

## 2020 Target to be Overshot by 33%

New Zealand's 2020 emissions target of 5% below 1990 levels has been set outside the Kyoto Protocol and is instead a non-binding pledge to other countries.<sup>vii</sup> Analysis of Ministry for the Environment projections shows that:<sup>viii</sup>

- New Zealand's gross emissions are projected to be 33% in excess of its 2020 target. That is, 168 megatonnes of CO<sub>2</sub> equivalent (Mt of carbon) greater than the target would allow during the period from 2013 to 2020.
- If carbon absorbed by crop forests is also counted, this roughly halves the overshoot to 15% - or 78 Mt on what the government terms a 'net' emissions basis.



New Zealand is planning to account for 90 Mt of the excess by claiming further credits from local crop forestry – and so put half this second bill on the Visa card too.

The plan set by the Cabinet for the other 78 Mt of the overshoot is to rely on carbon credits purchased internationally.<sup>ix</sup> The government has accumulated a large quantity of these, primarily as a result of such credits being used by companies to meet ETS obligations (instead of cutting emissions or buying local carbon credits). International carbon credits accounted for 99% of those surrendered in 2013 and the government expects it will hold 90 Mt worth of such credits that will not be needed to meet its pledge for the first Kyoto period.<sup>x</sup> So it intends to “carry over” enough credits from the first period to offset half the excess for the second period.

However, countries such as New Zealand that have not made a second commitment under the Kyoto Protocol may not have the same rights to carry over credits. Tensions during negotiations over these rights have led to rules that have been labeled “ambiguous and somewhat contradictory”.<sup>xi</sup> A key problem is that far too many credits have been issued into the UN system and unless access to them is restricted and other loopholes are closed, then those countries that have made no real effort to reduce emissions will be able to meet their second period commitments very cheaply while maintaining business as usual.<sup>xii</sup> But efforts to restrict surplus credits being carried over from one period to the next have been resisted by a small group of countries holding surpluses – including New Zealand.

During debate on these rules, New Zealand said that it simply wanted to preserve its ability to manage its crop forestry position.<sup>xiii</sup> This implies that carry over would be used to allow surplus forest credits that are earned in one period to be matched with emissions from harvesting in another period. But that is not New Zealand's apparent plan, as what first looked like a meaningful surplus has shrunk to 8 Mt and more importantly because credits from the first period are not being matched with harvesting in the third period, but with a gross emissions overshoot in the second period. What carry over would achieve in effect is an ability to transfer crop forest credits from the first period into the second period. And as New Zealand would then need to fill a gap in the first period tally, the carry over can also be described as effectively allowing the country to meet half its excess for the second period using imported credits that are mostly of dubious environmental integrity - sourced out of the Ukraine and Russia at a price of less than 50 cents a tonne.<sup>xiv</sup>

If New Zealand cannot settle up using these first period credits, then it is clear that the Government - but not companies or traders – could instead buy credits newly issued for the second period.<sup>xv</sup> This would likely be at much higher carbon prices and so a cost to the nation considerably above the few tens of millions of dollars incurred to acquire a surplus of first period credits. However, even then questions have been raised over whether credits designed for use within the Kyoto Protocol can be validly used to meet a commitment made outside it.<sup>xvi</sup> In the worst case, the implicit liability would carry over to the third commitment period – meaning that the entire bill for the excess from the second period would go on the Visa card.

### **The Third Period Carbon Crunch**

A third period commencing in 2021 and extending for up to ten years is the focus of international negotiations scheduled to be concluded in Paris in December 2015. This is the period world leaders are focusing on for global climate action to make a genuine showing. It is also the decade during which the trees New Zealand previously relied on to claim forestry credits are scheduled to be cut down.

Including payback for forest credits, New Zealand's emissions for the period from 2021 to 2030 are officially projected to be 55% above even just the current target level – an overshoot of 350 Mt. The Treasury uses this target level as its example when briefing ministers and warns that carbon prices will be considerably higher during this period - expecting them to be between \$10 and \$165 a tonne.<sup>xvii</sup> So for a target no more ambitious than the current one of 5% below 1990 levels, the Treasury is advising that this could cost New Zealand between \$3 billion and \$52 billion (assuming a 315 Mt excess).<sup>xviii</sup>

This is the time at which much of the Visa card payment comes due - with major penalty interest in the form of far higher carbon prices expected than in the earlier periods. But it is the continued growth in emissions that generates the biggest portion of the bill and without forest credits to whisk away the excess to another time, the financial cost of failing to take action in the past is suddenly clear.

New Zealand's current response is to be in the vanguard of those proposing that each country should take a non-binding commitment based simply on what it is willing to do (though under binding accounting standards).<sup>xix</sup> In contrast, the EU says that "legally binding mitigation targets are the only way to provide the necessary long-term signal".<sup>xx</sup> New Zealand is also brazenly pushing for flexibility in the rules to allow commitments to exclude gases other than CO<sub>2</sub> – when agricultural gases make up half the nation's emissions and three quarters of its emissions growth.

The Ministry of Foreign Affairs and Trade warns that: "the current negotiations on climate change are the most important multilateral negotiation now under way.

Positions taken by countries on climate change and their readiness to contribute to global solutions will increasingly define the way that others perceive them politically and economically".<sup>xxi</sup> As a small trade dependent nation, New Zealand cannot afford to under-perform and on current projections, any meaningful target for the third period is going to require serious spending.

The Treasury also acknowledges the need to "address credibility risks", but would like to contain that spending to a level that imposes "equal costs as a percentage of GDP in each country". But that formula would ignore the historic responsibility of developed countries whose past emission levels were high relative to others, and also ignores those that have made no meaningful long term difference to their emissions since developed countries pledged to act in 1992. New Zealand is represented in both classes and developing countries are of no mind to wipe the slate clean.

Whatever size commitment is adopted, the clear path for a country that relies on food exports and tourism for a living is to first engage in serious programmes to reduce emissions within New Zealand before looking to purchasing credits offshore. This also opens the way to creating a branding win out of necessity while keeping green jobs at home. In particular, there is a large potential for biodiverse permanent forestry and a sizable block of emissions in pastoral agriculture that can be cut at low cost.<sup>xxii</sup>

## **Carbon Budgeting**

Delivering serious emissions reductions within New Zealand requires something well beyond erratic ETS settings. It requires Carbon Budgeting.

- **A Carbon Budgeting process** details the expected carbon flows and how these can be reduced by practical actions. It takes targets, assesses the options, and describes an overall plan for achieving those outcomes. It integrates pricing tools such as the ETS with complementary measures.<sup>xxiii</sup>
- **An independent Climate Commission** needs to be established to undertake the budgeting process and recommend Carbon Budgets to government.
- **Legislation** is required to establish the Climate Commission and lock in emissions reduction targets at key intervals. In between these milestones, a series of five-year budgets are progressively struck that guide decarbonising of the economy within the legislated boundaries.<sup>xxiv</sup>

## **Beyond Crop Forest Credits**

The overall effect of New Zealand's climate change policy has been to put much of the cost of today's excess emissions on to tomorrow's taxpayers. But after many years focused on creative carbon accounting, New Zealand is now feeling pressure to deliver emission reduction results.

The circumstances are different partly because the two biggest carbon polluters, the US and China, have pledged to make meaningful change – though not that much. Mainly it is that the day has come when there are no longer crop forest credits to provide limited term offsets and the relentless rise in the nation's gross emissions is plain for all to see. At the same time, payback is due on forest credits that were used to duck costs in prior periods - all as carbon prices are expected to rise significantly.

None of this is unexpected – though there is still time to undertake some reshaping of how New Zealand will meet its existing obligations.<sup>xxv</sup> But tackling the actual problem of growing emissions requires a big change in thinking. It also means an end to the shallow spin that has been used to put off meaningful action, and instead embracing a New Zealand that steps up to its responsibilities and starts to truly look like the country it claims to be.

<sup>i</sup> All parties at the December 2010 UNFCCC meeting in Cancun agreed that countries “should develop low-carbon development strategies or plans”. The Ministry for the Environment stated that this “is not a mandatory requirement and New Zealand does not have such a strategy.” Open Letter on Producing a Low Carbon Development Plan, Letter to the Prime Minister, 7 June 2011.

<sup>ii</sup> Simon Terry, *The Carbon Budget Deficit*, Sustainability Council, September 2012.

<sup>iii</sup> MFE, *New Zealand's Sixth National Communication*, December 2013. In its previous Fifth National Communication, New Zealand had claimed the ETS would reduce gross emissions by 10 Mt in 2020 - a claim the Sustainability Council demonstrated lacked credibility. <http://www.sustainabilitynz.org/wp-content/uploads/2013/02/NZsClimateResponseOfficiallyInadequate.pdf>

<sup>iv</sup> Sustainability Council calculations, based on the Cabinet paper: Office of the Minister of Climate Change Issues, *International Climate Change: New Zealand's Unconditional 2020 Target*, August 2013.

<sup>v</sup> Agricultural gases also average 49% of total emissions during the 2013 to 2020 period, and 75% of the increase. They are 30% of the increase from 1990, but there are no property rights to the baseline.

<sup>vi</sup> MFE, *Net Position Report - 2008 - 2012*, April 2014.

<sup>vii</sup> The commitment is made under the UN Framework Convention on Climate Change (the Convention), the parent agreement to the Kyoto Protocol. The plan is to mirror Kyoto Protocol rules and construct domestic accounts to reflect this architecture. This target is independently rated as “inadequate”, relative to the cuts required from each country to hold the temperature rise below 2 degrees Celsius – as are the commitments from most developed countries. <http://www.climateactiontracker.org/countries/newzealand>

<sup>viii</sup> Office of the Minister of Climate Change Issues, *International Climate Change: New Zealand's Unconditional 2020 Target*, August 2013.

<sup>ix</sup> “The government plans to use its CP1 units to meet its next emissions reduction target as permitted for countries taking a CP2 target under the KP.” Ibid. By ‘net’, the government means ‘gross/net’.

<sup>x</sup> EPA, *ETS 2013 – Facts and Figures*, August 2014; and MFE, *New Zealand's Greenhouse Gas Inventory and Net Position Report - 2008 - 2012*, April 2014.

<sup>xi</sup> For countries that have not taken a second Kyoto commitment: “It is unclear if and how Parties can use their surplus Kyoto units from CP1 to meet their commitment under the Convention”. Anja Kollmuss, *Joint Implementation Under The 2nd Kyoto Commitment Period*, April 2014.

<sup>xii</sup> Sustainability Council, *Integrity Gap*, <http://www.sustainabilitynz.org/integrity-gap-copenhagen-pledges-and-loopholes>; and Ibid.

<sup>xiii</sup> New Zealand consistently opposed killing off surplus credits from the first period on the basis that it wanted to be able to use carry over to “manage its forestry emissions” (NZ Govt, *UNFCCC Bangkok*, April 2011), and it initially also opposed a change of rules to prevent trading of credits that were carried over (*Earth Negotiations Bulletin*, Vol. 12 No. 469, IISD, 9 June 2010). While it later relented on this trading aspect, saying in April 2011 that “An option that allowed carry-over of AAUs only for meeting future reduction pledges (preventing their trading) would satisfy New Zealand's requirements”, this would still enable settlements of the form New Zealand proposes.

<sup>xiv</sup> 90% of the credits surrendered in 2013 were ERUs, the great bulk of which originate in the Ukraine and Russia under the “additionality” approach: EPA, *ETS 2013 – Facts and Figures*, August 2014; and Infometrics, *Carbon Prices*, Letter to Climate Change Iwi Leadership Group, Letter of 24 June 2014.

<sup>xv</sup> “Annex I Parties with emission targets in the first commitment period but not in the second commitment period may not transfer or acquire Kyoto units valid for the second commitment period, although, as noted above, they may continue to receive CERs valid for the second commitment period forwarded from the CDM registry to accounts in their national registry”.

<http://ji.unfccc.int/FAQ/index.html>

<sup>xvi</sup> “Currently there are no clear and explicit rules that define if and how non-CP2 countries could use AAUs and ERUs for compliance of their pledges they made under the Convention.” Anja Kollmuss, *Joint Implementation Under The 2nd Kyoto Commitment Period*, April 2014.

<sup>xvii</sup> The Treasury, *Climate Change - Important Decisions Between Late-2014 and Mid-2015*, November 2014, [www.treasury.govt.nz/publications/briefings](http://www.treasury.govt.nz/publications/briefings) The European Commission and the UK government are planning on the assumption that carbon prices will be NZ\$40/tonne in 2020 and steadily rise to between NZ\$150 and nearly NZ\$600 a tonne by 2050 - UK Committee on Climate Change, *Fourth Carbon Budget Review – Part 2*, December 2013.

<sup>xviii</sup> The Treasury's costs figures assume a value for the overshoot of 315 Mt, which is 10% below the 350 Mt that current projections show. At 350Mt, the range of costs extends to \$58 billion.

<sup>xix</sup> Todd Stern, *Seizing the Opportunity for Progress on Climate*, Speech, October 14, 2014

<http://www.state.gov/s/climate/releases/2014/232962.htm>

<sup>xx</sup> <http://www.theguardian.com/environment/2014/dec/02/lima-climate-talks-eu-and-us-at-odds-over-legally-binding-emissions-targets>

<sup>xxi</sup> MFAT, *Briefing to the Incoming Minister*, October 2014.

<sup>xxii</sup> Geoff Bertram and Simon Terry, *The Carbon Challenge*, Bridget Williams Books, 2010.

<sup>xxiii</sup> Sustainability Council, *Carbon Budgeting: Integrated Planning for Climate Action*, August 2013.

[http://www.sustainabilitynz.org/wp-content/uploads/2013/08/CarbonBudgeting\\_IntegratedPlanningforClimateAction.pdf](http://www.sustainabilitynz.org/wp-content/uploads/2013/08/CarbonBudgeting_IntegratedPlanningforClimateAction.pdf)

<sup>xxiv</sup> Simon Terry, *The Carbon Budget Deficit*, Sustainability Council, September 2012.

<sup>xxv</sup> The temporary nature of the salve that crop forest credits provide was recognised from before 1997 when New Zealand advocated for these to be counted under Kyoto Protocol rules. For further detail see chapter 9: Geoff Bertram and Simon Terry, *The Carbon Challenge*, Bridget Williams Books, 2010.