



NEW ZEALAND – APRIL 2008

New Zealand's 'Clean Green Image' under threat Government's expansion of industrial dairy increasing climate change

QUESTIONS AND ANSWERS

Introduction

Just as state-owned enterprise Solid Energy is expanding the mining and export of coal, Landcorp, another Government-owned company and New Zealand's largest farmer, is overseeing the conversion of land from forestry to intensive dairy. This illustrates the Government's inability to reconcile its clean and green aspirations with real action on climate change.

The Government and other political parties can talk all they want about carbon neutrality and world leadership on climate change, but if the expansion of high-polluting industries such as agriculture and coal is not curbed then we cannot argue we're doing our bit in this global challenge.

Why is Greenpeace taking this action?

Greenpeace is reforesting land that Landcorp has converted from plantation forestry to industrial dairy, to show that the New Zealand Government and other political parties are talking big on climate change, but have failed to develop any policies to tackle emissions or the rapid expansion of the agriculture sector.

This action is designed to encourage all political parties to consider policies to tackle emissions from the agricultural sector, to bring it into the Emissions Trading Scheme (ETS) within the next two years, and halt further expansion of the dairy industry until it is proven to be environmentally sustainable.

What is the Government doing to tackle agricultural emissions?

The Labour-led Government has introduced an Emissions Trading Scheme (ETS) under which polluting sectors must, over time, cover the cost of their greenhouse gas emissions.

While this may sound good in theory, a glaring gap in the ETS is the exemption of agriculture, New Zealand's biggest greenhouse gas emitting sector, until 2013. Even when the sector is eventually brought into the ETS in five years time, the government will

subsidise (which means we as the tax payer will carry the cost) its greenhouse gas emissions up to 90 percent until 2025.

This leads to short-sighted investment decisions such as cutting down forests to convert the land to dairy farms, and severely undermines the effectiveness of a scheme that's designed to encourage a rapid transition to cleaner technologies and practices.

Why did you target Landcorps conversion?

This field has recently been converted by Landcorp, a state-owned enterprise and New Zealand's largest farmer, from forestry to pasture as part of the Tahorakuri Forest dairy conversion project. It provides a clear example of the destruction that is occurring around the country.

While deforestation is a national issue, it is mostly occurring in only two regions of New Zealand: the Central North Island and Canterbury.

Landcorp has leased this land for 45 years. Landcorp's two subsidiary companies, Landcorp Developments Ltd and Landcorp Pastoral Ltd are developing the land.¹ Landcorp makes the decisions about the use of this land, and is driving the conversion from forestry to dairy pasture.

Tahorakuri Forest is located on state highway five between Taupo and Rotorua. More than 25,000 hectares of pine plantations northeast of Taupo - of which a quarter is the Tahorakuri Forest - have been earmarked for conversion into 20 dairy units, with a large sheep, beef and dairy heifer unit located on the steeper ground.

How long has this conversion been underway, and how does it work?

The project involves cutting down all trees under twelve years old and harvesting the older trees as they mature. Conversion began in November 2004 with five dairy conversion units being established to date.² By cutting all trees less than 12 years old instead of those under five years old as originally planned, the conversion time has been reduced by five years.

It is expected that the clearing and development will take 12 to 14 years with up to 1200ha being cleared annually. Landcorp says that when the operation is at full production it will have 25,000 to 30,000 dairy cows and grow up to 6,000 replacement heifers.³

Along with Landcorp, other private companies are also involved in deforestation and conversion to dairy. Carter Holt Harvey for example is currently converting over 25,000 hectares of the Kaiangaroa pine plantation to dairy units. Development will be spread over 25 - 30 years with an average of 750 – 900 hectares per year made up of 90 farms.⁴

¹ <http://www.ew.govt.nz/newsandevents/agendas/documents/env1126620.pdf>

² <http://www.ruralnews.co.nz/Default.asp?task=article&subtask=show&item=14494&pageno=1>

³ http://www.redorbit.com/news/science/295536/nz_super_buys_more_forests/index.html

⁴ www.ew.govt.nz/newsandevents/agendas/documents/env1126620.pdf

What trees have you planted?

We have planted mixed species seedlings and saplings, all of which are suited to the region. We have planted a plantation forest with some exotic forestry trees – Lusitanica, and six varieties of Eucalyptus (including Regnanf, Globoidea and Fastigata); as well as the native Totara. We have also planted a block of native reserve, which includes eco-sourced Ninginingi, Pokaka, Kanuka, Kowhai and Hebe, as well as Totara.

Eco-sourced means that the trees came from the general area. The Kanuka were sourced just 5 mins down the road from the site of our protest.

Isn't New Zealand already taking significant action against climate change? What more do you want?

Yes, New Zealand is doing some good things when it comes to climate, but if you weigh up the good with the bad, the net result is that we're actually failing miserably when it comes to the one thing that will actually solve climate change - emission reductions.

Our emissions are skyrocketing and we are expanding our most polluting industries. The Government and other political parties urgently need to commit to a greenhouse gas emission reduction target of 30 per cent by 2020. This would make New Zealand a leader on climate change and demonstrate that such bold steps can be win-win, for the climate and New Zealand's economy.

If we don't take action to reduce agriculture's emissions and halt the expansion of intensive dairying, we will have no chance of achieving significant emission reductions in New Zealand and no chance of reaching this target. We need the agriculture sector to be brought into the ETS within the next two years. We also need regulations to halt the expansion of intensive dairy farming.

What are the rates of deforestation and conversion to dairy?

According to the Ministry for Agriculture and Forestry (MAF), 455,000 hectares of forestry land is at risk of being deforested and converted into pastoral use – the majority for dairying (An area nearly seven times the size of Lake Taupo.). Of this total, two-thirds are in the North Island and one-third in the South Island.⁵

However, this could easily be an underestimation as projections for 2007 were off by 50 per cent.⁶ Government projections only take into account the 65 per cent of forests that are over 10,000ha.

The national plantation estate is currently 1.8 million hectares. This means that based on MAF projections, over 25 per cent of the nation's plantation is at risk of being deforested and converted into mainly industrial dairy farming.

This is happening as the economic incentive to convert land to dairying is at an all time high, and as Minister for Agriculture and Forestry Jim Anderton pointed out last year,

⁵ MAF, Area of forest 'at risk' from deforestation, August 2006, <http://www.maf.govt.nz/climatechange/forestry/ets/area-at-risk/page-04.htm>

⁶ Manley, Bruce. 2007 Deforestation Survey Final Report, February 2008.

“The overwhelming majority of this deforestation is being conducted by a handful of corporate property investors attracted by the profits from converting forests to high value lifestyle blocks and dairy land.”⁷

Why target the agriculture and dairy sectors?

Agriculture accounts for 49 per cent of New Zealand’s greenhouse gas emissions. One third of agriculture’s emissions come from nitrous oxide (from livestock urine, manure and artificial fertiliser) and two-thirds come from methane (primarily from livestock burping – the “fart tax” was a misnomer).

And these emissions have increased by 15 per cent since 1990. The Ministry for Agriculture and Forestry (MAF) expects agricultural emissions to increase by 25 per cent from 1990 levels by 2010, and predicts that the increase could be as high as 40.5 per cent.⁸

Why is this increase in emissions happening?

A MAF survey shows that the dairy herd has increased from 3,391,000 in 1990⁹ to 5,280,000 in 2007¹⁰ – a 58 per cent increase. MAF expects herd numbers to reach 6,107,000 by 2010, or even as high as 6,409,000.¹¹

Their projected most likely scenario of 6,107,000 cattle in 2010 would mean an increase in the dairy herd of 80 per cent from 1990 levels.

We can expect a corresponding increase in greenhouse gas emissions. So at a time when everyone needs to be thinking of ways to reduce emissions, the dairy industry is planning an expansion that could see emissions rise as much as 21 per cent in just three years.

What about the methane emissions? Will these increase?

In fact, methane levels are actually increasing per head due to higher stock numbers and poor diet. In 1990, dairy cattle produced 70.11kg of methane per head per annum. MAF projects that by 2010 each cow will produce 82.46kg of methane per annum (a 17 per cent increase), or even as high as 83.79kg (a 20 per cent increase).¹²

How about Nitrous Oxide?

⁷ MAF media release, Urgent Need for Action on Forestry, 26 February 2007.

⁸ Ministry for the Environment, Appendix A. Agriculture Emissions Projections provided by Ministry of Agriculture and Forestry, September 2007.

⁹ Ministry for the Environment, Appendix A. Agriculture Emissions Projections provided by Ministry of Agriculture and Forestry, September 2007.

¹⁰ Statistics New Zealand, 2007, Dairy Cattle Number in New Zealand as at 30 June, from 1971.

¹¹ Ministry for the Environment, Appendix A. Agriculture Emissions Projections provided by Ministry of Agriculture and Forestry, September 2007.

¹² MAF, Appendix A. Agriculture Emissions Projections provided by Ministry of Agriculture and Forestry, September 2007.

Nitrous oxide levels are also rising because of increased use of artificial fertilisers, higher stock numbers, and poor soil and urine management. There has been a six-fold increase in use of nitrogenous fertiliser since 1990.¹³ In 1990, nitrous oxide levels from dairy cattle excretion were 104.9kg per head per annum. MAF expects that by 2010, these levels will have increased to 120.24kg per head (a 15 per cent increase), or even as high as 122.29kg per head (a 17 per cent increase).¹⁴

The Ministry for the Environment (MfE) has also predicted that nitrogen fertiliser use will rise from 399,000 tonnes in 2004¹⁵ to 421,100 tonnes by 2010 – a 6 per cent increase.¹⁶

These figures provide a clear indication of intensification of the industry, and a dire need for reform.

So are you anti-farming?

Greenpeace is not targeting individual farmers – we are targeting the ethos of an agricultural industry designed to expand at all costs.

Due to this expansion, New Zealanders will have to deal with the longer-term environmental and economic issues arising from these environmentally damaging practices – from the excess climate emissions, to the clearance of our forests, and pollution of waterways. In addition, we are also subsidising the dairy sector to the tune of \$1.2billion from 2008-2012, just for the sector's increase in emissions.

So what are farmers to do? Stop farming altogether?

There is no quick fix, and we need a change in practices, not just the use of a new product. There are a number of practices being implemented by a growing number of New Zealand farmers that can help to reduce agricultural emissions. These practices focus on finding more sustainable ways of looking after the soils on farms in order to reduce the amount of chemical nitrogen fertilisers and superphosphates required for meeting on-farm productivity.

Research has shown that through better soil management you can reduce emissions whilst increasing production and profitability.

Some in the agricultural industry argue that a scientific breakthrough is needed before we can make any headway with greenhouse gas emissions and that the only way to reduce emissions now is to reduce production. This is simply not true.

We are not proposing that those already farming stop, but rather that the current dairy expansion be halted and better practices implemented on existing farms. Farmers need

¹³ New Zealand's Greenhouse Gas Inventory 1990–2005, Department of the Environment, p17.

¹⁴ Ministry for the Environment, Appendix A. Agriculture Emissions Projections provided by Ministry of Agriculture and Forestry, September 2007.

¹⁵ <http://www.stats.govt.nz/NR/rdonlyres/F8C0A446-864C-4AB1-B2C0-B095EC20F1F4/0/FertiliserUseandtheEnvironmentAug06.pdf>, p6.

¹⁶ <http://www.mfe.govt.nz/publications/climate/projected-balance-units-may05/html/figure-a1.html>

to work towards sustainable farming methods that reduce emissions. We need policies that incentivise these changes by placing a price on emissions and rewarding practices that reduce emissions.

Simple changes in animal grazing practices such as leaving more residual grass cover in pasture can have a dramatic effect on long term soil health and thus reduce greenhouse gas emissions – both methane and nitrous oxide.

The New Zealand agricultural sector has an opportunity to lead the world in low greenhouse emission farming through the adoption of best practice measures that are already available and starting to be implemented on farms in New Zealand.

But won't people get their dairy produce from somewhere else?

Greenpeace is not suggesting that New Zealand should halt agricultural production, we are simply suggesting that the agricultural sector farm in a more sustainable, less emissions intensive way.

Agriculture is the backbone of our economy, and we need to make sure it stays that way and is not sacrificed for short-term gains through unsustainable farming practices.

These unsustainable farming practices are allowing our competitors to close the emissions efficiency gap between New Zealand and other producers.

The current Fonterra model will only lead the agricultural sector to bust – shifting the NZ agricultural industry from producing quality branded products, to cheap commodities like milk powder, and shifting our production technologies offshore to countries like China, where they will be able to produce dairy products at a lower price.

Fonterra are actively working to expand the market for dairy, and are intensifying production in areas that aren't suited to dairy farming.

New Zealand will never be able to compete on quantity and feed the world – there will always be other regions (for example South America) that can produce meat and dairy at greater quantity and lower prices than us. What we *can* feed is the niche markets in Europe, North America and elsewhere that are increasingly calling for quality, environmental friendly produce. Our clean, green branding is already being questioned internationally. If we don't quickly take steps to reduce emissions, we could lose these niche markets forever.

What is the financial cost of not tackling agricultural emissions?

At a realistic price of \$30 per tonne of greenhouse emissions, 2008 to 2012 will see the cost of increasing emissions from dairy top \$1.2 billion – all of which will be picked up by the taxpayer. Taxpayers are subsidising the entire agricultural sector \$2.5million a day (at a realistic price of \$30 per tonne) for their total emissions.¹⁷

¹⁷ Saddler, H. and R. Denniss, New Zealand's Expanding Carbon Footprint: Analysis of New Zealand's Emissions Trading Scheme; major flaws and barriers to emissions cuts, 2008, p17.

Dairy only appears to be profitable because it does not pay for its significant environmental impact, particularly on our rivers which are fouled by runoff and reduced to a trickle by irrigation. Not having to pay for its environmental impact therefore can be regarded as a subsidy for the dairy industry. In addition, farmers who have adopted best farming practices to reduce emissions are not able to get any reward for their more sustainable approach at present.

What about our clean, green brand?

As for the cost to the New Zealand brand, a 2001 MfE report suggests that New Zealand's clean green brand is worth at least hundreds of millions and possibly billions of dollars a year. Its worth is estimated at \$500 million per year to the dairy industry alone.¹⁸

The report strongly indicates a significant vulnerability of export value (through reduction in product quantities likely to be purchased by consumers) in the event of a degradation of New Zealand's environment.

The 2008 State of the Environment report reveals that there is already a risk that New Zealand's 'clean and green' brand will lose value if we are not vigilant in dealing with the problems that could threaten the image.¹⁹

Any whiff of suspicion over any sector of our economy could destroy our clean, green branding and mean we lose our key markets. If the dairy sector doesn't get its act together it could destroy the brand not just for itself but for all other sectors as well.

Won't climate change hit farmers hardest?

Yes. It's true that the agricultural sector is in line to suffer the most from the negative impacts of climate change and scientists state they can expect increased droughts, floods and extreme weather events, which is why it should be progressive and interested in finding solutions to the problem.

Recent studies show that the agriculture sector is getting less profitable and emitting more greenhouse gases. Alongside long term protection of their business interests, gains in efficiency and sustainability can also help farmers save money. But there is more to farming than making money. Many farmers want to hand down productive sustainable farms with living soils to the next generation of New Zealand farmers.

It would be great if farmers adopted improved farming practices and efficiency measures, reduced their emissions and didn't have to cough up money.

Won't agricultural production just move off shore if placed under greater regulatory burden?

Farmers can hardly just pack up their farms and move offshore, and even if it could New Zealand agriculture can't compete on price – it competes on quality. Reducing

¹⁸ <http://www.mfe.govt.nz/publications/sus-dev/clean-green-image-value-aug01/>

¹⁹ <http://www.mfe.govt.nz/publications/ser/enz07-dec07/index.html>

agriculture's emissions will give the sector an opportunity to maintain and defend New Zealand's clean green brand and help them to capture the premium end of the market.