

Dairy's free ride

The fiscal impact of excluding agriculture from the Emissions Trading Scheme until 2013

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1. Summary

The cumulative increase in agricultural emissions above 1990 levels over the five year Kyoto period of 2008 – 2012 is projected to be 40.6 million tonnes of carbon dioxide equivalent.

Under the Government's proposed Emission Trading Scheme, agriculture is not responsible for holding carbon credits to cover these increased emissions.

Dairy is currently responsible for a greater level of increased emissions than the whole of the agricultural sector combined, because dairy is expanding while sheep farming is in decline. This is likely to continue throughout the 2008-2012 period.

At a realistic price of \$30 per tonne greenhouse emissions, the cost of the increased emissions from dairy over the 2008-2012 Kyoto period will require a \$1.2 billion subsidy from the taxpayer to the dairy industry.

2. The Agricultural Sector and Greenhouse Gas Emissions

In 2005, Agricultural emissions were 37.5 Mt CO₂-e. This is 49% of NZ's total gross greenhouse gas emissions of 77.2 Mt CO₂-e and represents a 15% increase on 1990.

Table 1: Total agricultural emissions – current and projected

Year	Agriculture kt CO ₂ -e	Increase CO ₂ -e	% from 1990
1990	32,497		
2005	37,445	4948	15%
2007 ¹	38,105	5608	17%
2008-2012 avg ²	40,620	8123	25%

The growth in dairying is responsible for *all* of the increase in emissions of the agricultural sector. Two-thirds of these are enteric methane, while the remainder is primarily nitrous oxides. NZ's greenhouse gas inventory divides the methane into farming types. The other emissions can be extrapolated across the types. The following table shows that the increase in emissions from dairy since 1990 (5.9Mt) is *more* than the overall increase (4.9Mt). There has been a marked decrease in emissions from sheep farming. The growth in dairy farming is therefore responsible for all the of the emission increase.

Table 2: Agricultural emissions by sector (kt CO₂e)

	1990			2005			1990 to 2005	
	Methane	Other *	Total	Methane	Other *	Total	Increase	
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Dairy cattle	5,210	2,342	7,552	8,873	4,594	13,467	5,915	78%
Beef cattle	5,005	2,250	7,255	5,421	2,807	8,228	973	13%
Sheep	11,348	5,101	16,449	9,289	4,810	14,099	-2,351	-14%
Other	833	374	1,207	1,077	558	1,635	427	35%
Total	22,419	10,078	32,497	24,671	12,774	37,445	4,948	15%

¹ Projection based on current growth trend

² Most-likely scenario projected average per year (MAF), <http://mfe.govt.nz/publications/climate/projected-balance-emissions-sep07/html/page7.html>

3. The Government and the Agricultural Sector

The agricultural sector has no intention to reduce emissions. This goes against the Government's wish, and a voluntary agreement. The Government therefore has every right to make the sector responsible to cover the cost of these emissions. Since dairy is responsible for them, that sector should face the cost.

Defending the late inclusion of agriculture into the scheme in his urgent debate speech, the Minister for Climate Change Issues David Parker stated: "I do hold out some hope that agriculture will start reducing its emissions, particularly through the widespread use of nitrification inhibitors..."³

However, in responding to the ETS announcement, Federated Farmers state: "At present the only way to reduce emissions is to reduce production".⁴ This is untrue and the unwillingness to reduce emissions is in stark contrast to the Minister's faith that voluntary reductions will be made to reduce emissions by 2012.

The admission of Federated Farmers also goes against the *Memorandum of Understanding* signed in 2003 between the Government and the Agricultural sector. The Government agreed to cover the sector's liability for the Kyoto period, and in return the sector would seek to reduce emissions by 20% below business-as-usual (BAU).⁵

BAU is notoriously difficult to calculate, being an estimation of what might have been if no reduction measures had been taken. The Agricultural sector has employed some minor measures that will have reduced emissions a tiny fraction below BAU, but there is no way that this is anywhere near 20% reduction. The Minister admitted this in the House when he said, "*No, the agricultural sector is not on target to meet its part of the deal under that agreement*".⁶

The Minister also stated: "...without [the ETS] announcement New Zealand's greenhouse gas emissions would have increased for that 5-year period from 2008 to 2012, from... 41.2 million tonnes up to 45.5 million, most of that **because of increased dairy-related livestock and processing emissions.**"

³ http://ourhouse.parliament.nz/en-NZ/PB/Debates/Debates/2/6/9/48HansD_20070920_00000819-Urgent-Debates-Emissions-Trading-Scheme.htm

⁴ <http://www.scoop.co.nz/stories/BU0709/S00383.htm>

⁵ at <http://www.maf.govt.nz/mafnet/rural-nz/sustainable-resource-use/climate/memorandum-of-understanding/index.htm>

⁶ http://ourhouse.parliament.nz/en-NZ/PB/Debates/QOA/6/0/c/48HansQ_20070920_00000034-1-Emissions-Trading-Scheme-Greenhouse-Gas.htm

4. The level of taxpayer subsidy to the dairy sector

The Government's ETS will not require the agricultural sector, responsible for 49% of emissions in 2005, to take any financial responsibility for the post-1990 increase in emissions until 2013. This is after the five-year Kyoto period 2008-2012, so the taxpayer will foot the complete bill for the increase in dairy emissions.⁷

Agricultural sector emissions are projected to average 40.6 Mt per year for 2008-2012 under current growth trend. This is 8.12 Mt per year above 1990 levels, and coincidentally a Kyoto liability of 40.6Mt. At the realistic carbon price of \$30/tonne this **will cost the taxpayer \$1.2 billion**. A tonne of greenhouse gases is currently trading for about NZ\$40 in the EU emissions trading scheme. NZ Treasury values them at NZ\$15 per tonne. Most commentators are using the NZ\$30 per tonne value as a realistic mean. Even at the Treasury-estimated carbon price of \$15/t, it amounts to \$610 million. This is a direct wealth transfer from tax-payer to the dairy sector.

In addition to this subsidy, the Government has announced investments in agricultural research and development, and afforestation grants to reduce emissions, totalling \$175 million over 5 years.⁸ This is a good investment, but it should be covered by the sector itself, and it would be if only the dairy sector was made responsible for even a portion of its Kyoto liability.

Under the Government's policy, the dairy sector can continue to increase emissions and the taxpayer will subsidise them through to 2013. Taxpayers are directly subsidising the highly-profitable dairy industry over a billion dollars.

⁷ The Agricultural sector is also responsible for other indirect emissions, primarily in transport and production of agricultural products, and the entry of the Energy sector in 2010 will mean that the emissions from electricity and transport fuel used by the sector during the Kyoto period will be covered. However, processing energy, e.g. dairy factories running on coal boilers, will not enter until 2010 and may get grand-parented a free allocation of emission units. While the Government's stated intention is to not give away free units to industries whose competitiveness is not at risk, it is likely that the dairy industry will mount such a case. If granted, then the taxpayer is subsidising the sector even further.

⁸ <http://www.climatechange.govt.nz/files/Sustainable-Land-Management-and-Climate-Change-Plan-of-Action.PDF> (page 18). Note that \$42M is for the afforestation grants scheme, and this will primarily benefit farm-foresters.