



New Zealand Emissions Trading Scheme

EMISSIONS TRADING SCHEME

Facts and Figures 2016

About this factsheet

The New Zealand Emissions Trading Scheme (NZ ETS) is the Government's principal policy response to climate change.

This factsheet presents information about allocations and entitlements, emissions and the surrender of units. Five sectors have obligations to surrender units according to the level of their emissions: Forestry, Stationary Energy, Industrial Processes, Liquid Fossil Fuels and Waste.

The Report on the New Zealand Emissions Trading Scheme published in 2011 and the NZ ETS Facts and figures for subsequent years contain key facts and figures relating to the NZ ETS. This factsheet provides updated figures and comparisons for 1 January to 31 December 2016.

How to use this factsheet

This factsheet provides an overview of the operation of the NZ ETS in a simple and informative manner. Much of the information contained in this factsheet was drawn from the Environmental Protection Authority's (EPA) Annual NZ ETS Report which is available on the EPA website (www.epa.govt.nz). The 2016 Annual NZ ETS Report relates to activities in the 2016 financial year (1 July 2016 to 30 June 2017), which is different from the period covered by this factsheet (the 2016 calendar year).

Units surrendered

Participants in the NZ ETS have been able to surrender either New Zealand Units (NZUs) or international units.¹ The NZ ETS has operated within a broader global emissions market.

Figure 1 shows the breakdown of the types of units that have been surrendered for emissions that occurred between 1 January and 31 December 2016 for non-forestry sectors and pre 1990 forestry, and for emissions and de-registrations reported for post-1989 forestry in the 2016/17 financial year. Post 1989 forestry is different from pre 1990 forestry as the emissions and removals for Forestry Removals Activities participants (i.e. post 1989 forestry participants) are reported over a five-year period. Post 1989 forestry

participants are only required to report at the end of the current five year reporting period. Reporting in other years is voluntary and does not necessarily reflect the level of activity undertaken by this sector.

The table to the right of Figure 1 displays the total number of units surrendered for each year's emissions. The breakdown of unit types contributing to these totals is presented in Table 1.

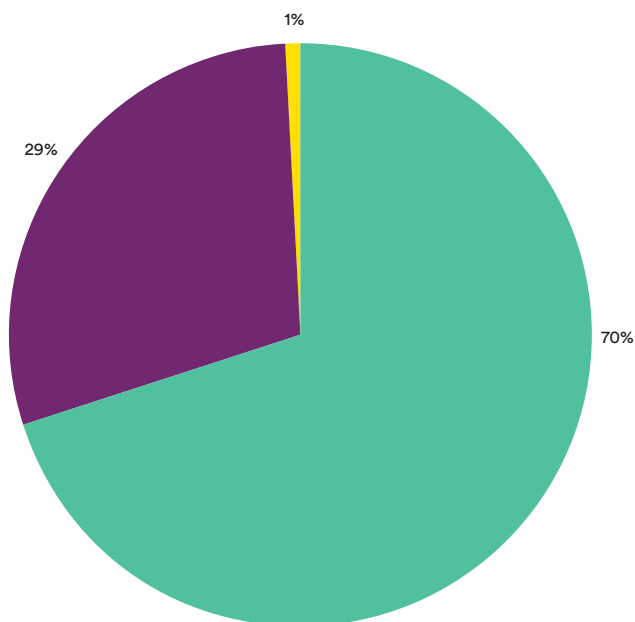


FIGURE 1

Types of units surrendered

● Forestry NZUs ● Other NZUs ● NZ AAUs

Total units surrendered

2010:	2013:	2016:
8,337,576	46,617,072	22,160,171
2011:	2014:	
16,410,945	29,849,326	
2012:	2015:	
35,720,011	20,605,323	

The 2010 surrender period relates to emissions over a six-month period for non-forestry sectors, whereas the 2011–2016 surrender periods relate to emissions over a full year. Also the figures differ from those in the EPA's Annual NZ ETS Report. Primarily, this is due to the period the report covers and the period to which this factsheet relates. The EPA's Annual NZ ETS Report covers activities in the 2016/17 financial year (1 July 2016 to 30 June 2017). The total numbers of units surrendered

for the 2010–2015 years may have changed from the previous factsheet due to the late surrender of units or amendments to emissions returns.

¹ Since 31 May 2015, internationally-originated units have not been able to be surrendered to meet emissions obligations. Note: NZ AAU are still eligible to be surrendered.

How participants of the NZ ETS have met their surrender obligations

The numbers of units surrendered for activity related to each of the 2010–2015 years have been updated to reflect

amended or late emissions returns and the resulting surrender obligations, plus late surrenders.

TABLE 1

Forestry NZUs (New Zealand Units) These are NZUs given to foresters for removal activities or through the Forestry Allocation Plan. They may be converted to NZ AAUs for offshore sale.

2010:	2011:	2012:	2013:	2014:	2015:	2016:
5,330,073	2,152,676	583,084	141,280	795,029	10,213,021	15,539,442

Other NZUs These are all other NZUs, including those given to Industrial Allocation recipients. They cannot be converted to NZ AAUs for offshore sale.

2010:	2011:	2012:	2013:	2014:	2015:	2016:
2,546,635	2,306,060	449,986	83,141	239,751	9,848,832	6,471,364

NZ AAUs (Assigned Amount Units) New Zealand-based AAUs. Can be either forestry NZUs that have been converted into NZ AAUs or NZ AAUs that have been granted to companies in New Zealand that have participated in Projects to Reduce Emissions (PRE) or the Permanent Forest Sinks Initiative (PFSI).

2010:	2011:	2012:	2013:	2014:	2015:	2016:
262,883	279,511	166,854	0	772	543,439	149,272

CERs (Certified Emission Reduction units) CERs are units generated by Clean Development Mechanism (CDM) projects offshore. Participants in the NZ ETS could buy these units to meet their surrender obligations up to and including the 2014 year.

2010:	2011:	2012:	2013:	2014:	2015:	2016:
133,150	4,151,962	3,309,462	2,064,175	6,458,589	0	0

ERUs (Emission Reduction Units) ERUs are units generated by Joint Implementation (JI) projects offshore. Participants in the NZ ETS could buy these units to meet their surrender obligations up to and including the 2014 year.

2010:	2011:	2012:	2013:	2014:	2015:	2016:
0	4,271,080	27,690,431	42,352,860	21,981,696	0	0

RMUs (Removal Units) RMUs are Kyoto Protocol units generated through storing carbon in trees. Participants in the NZ ETS could buy these units to meet their surrender obligations up to and including the 2014 year.

2010:	2011:	2012:	2013:	2014:	2015:	2016:
0	3,176,081	3,520,192	1,975,595	373,486	0	0

NZ \$25 Fixed Price Option Companies have the option to pay the Government a NZ\$25 fixed price per unit to be surrendered, rather than surrender eligible units.

2010:	2011:	2012:	2013:	2014:	2015:	2016:
64,835	73,575	2	21	3	31	93

Industrial allocations

The Government provides NZUs to companies carrying out activities that are emissions-intensive and trade exposed. This is to help ensure that NZ ETS costs do not put these companies at a disadvantage compared to their international competitors. The full list of eligible activities is available on the EPA website.

NZUs are allocated annually and can be applied for in advance at the beginning of the calendar year or in arrears after the year is completed.

Figure 2 shows the proportion of allocations by activity for 2016 activity. The total number of units allocated for 2016 activity was 4.3 million.

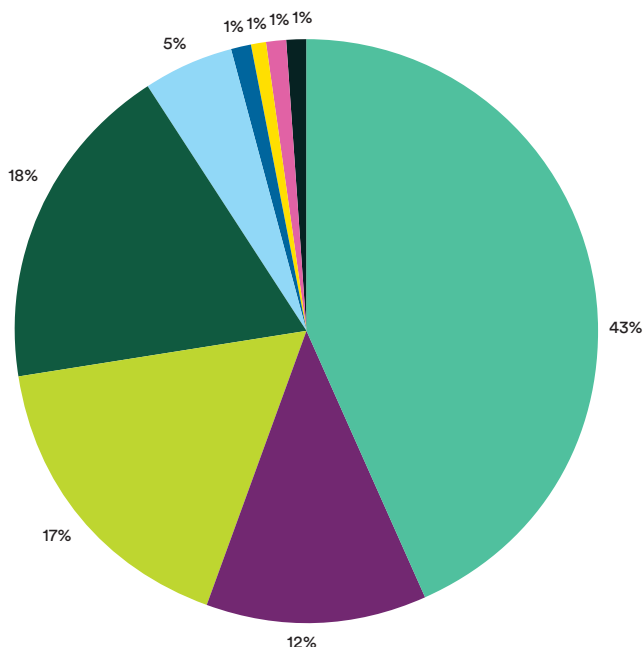


FIGURE 2

Percentage of NZUs allocated by activity

- Iron, Steel, and Aluminium Manufacturing (4% of applicants)
- Clay Bricks & Field Tiles, Cementitious Products, and Burnt Lime (4% of applicants)
- Market Pulp, Tissue Paper, Packaging & Industrial Paper, Newsprint, and Cartonboard Manufacturing (7% of applicants)
- Methanol, Ethanol, and Hydrogen Peroxide (4% of applicants)
- Production of Ammonia-urea, Caustic Soda, Glass Containers, and Gelatine (5% of applicants)
- Production of Fresh Tomatoes, Capsicums, Cucumbers, and Cut Roses (51% of applicants)
- Meat By-product Rendering (20% of applicants)
- Reconstituted Wood Panels (6% of applicants)
- Production of Lactose and Whey Powder (1% of applicants)

Forestry

Pre-1990 forestry

Pre-1990 forest land is land that was forested in any forest species on 31 December 1989 and remained in predominantly exotic forest on 31 December 2007. The Government provided pre-1990 forest landowners with an allocation of NZUs. This occurred in two tranches, with the first occurring from 1 January 2010 to 31 December 2012, and the second tranche occurring in 2013.

Post-1989 forestry

Post-1989 forest land is land that was established in forest species after 31 December 1989 on land that was not previously forested. These forests are eligible to earn NZUs

for carbon dioxide absorbed from 1 January 2008. Post-1989 foresters can choose to become voluntary participants in the NZ ETS. However, emission units must be surrendered when the trees are harvested or if the land is deregistered from the NZ ETS.

Post-1989 forest land had to be registered in the NZ ETS before 31 December 2012 to claim the carbon stored between 2008 and 2012 (the first reporting period). For the second reporting period of 2013–2017, participants must register by 31 December 2017 to claim units for the carbon stored during that period. However, they may choose to register earlier and claim NZUs in annual portions during the reporting period. This means that units for carbon absorbed from 2013 may have already been claimed by some participants.

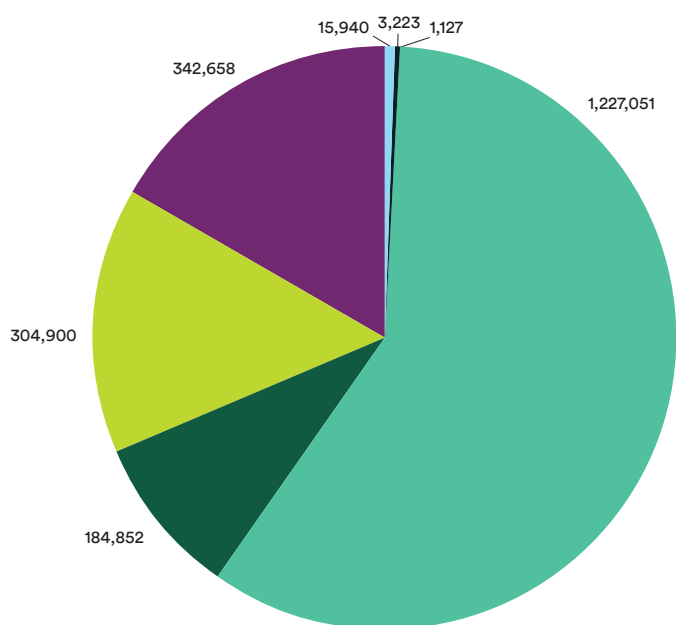


FIGURE 3

Distribution of forest land (in hectares) under the NZ ETS

- Pre-1990 forest land that received an allocation
- Possible Pre-1990 forest land that did not receive an allocation
- Post-1989 forest land registered in the ETS
- Possible Post-1989 forest land not currently registered in the ETS
- <50 hectare exempt forest land
- Pre-1990 offset area
- Total area granted a Tree weed exemption

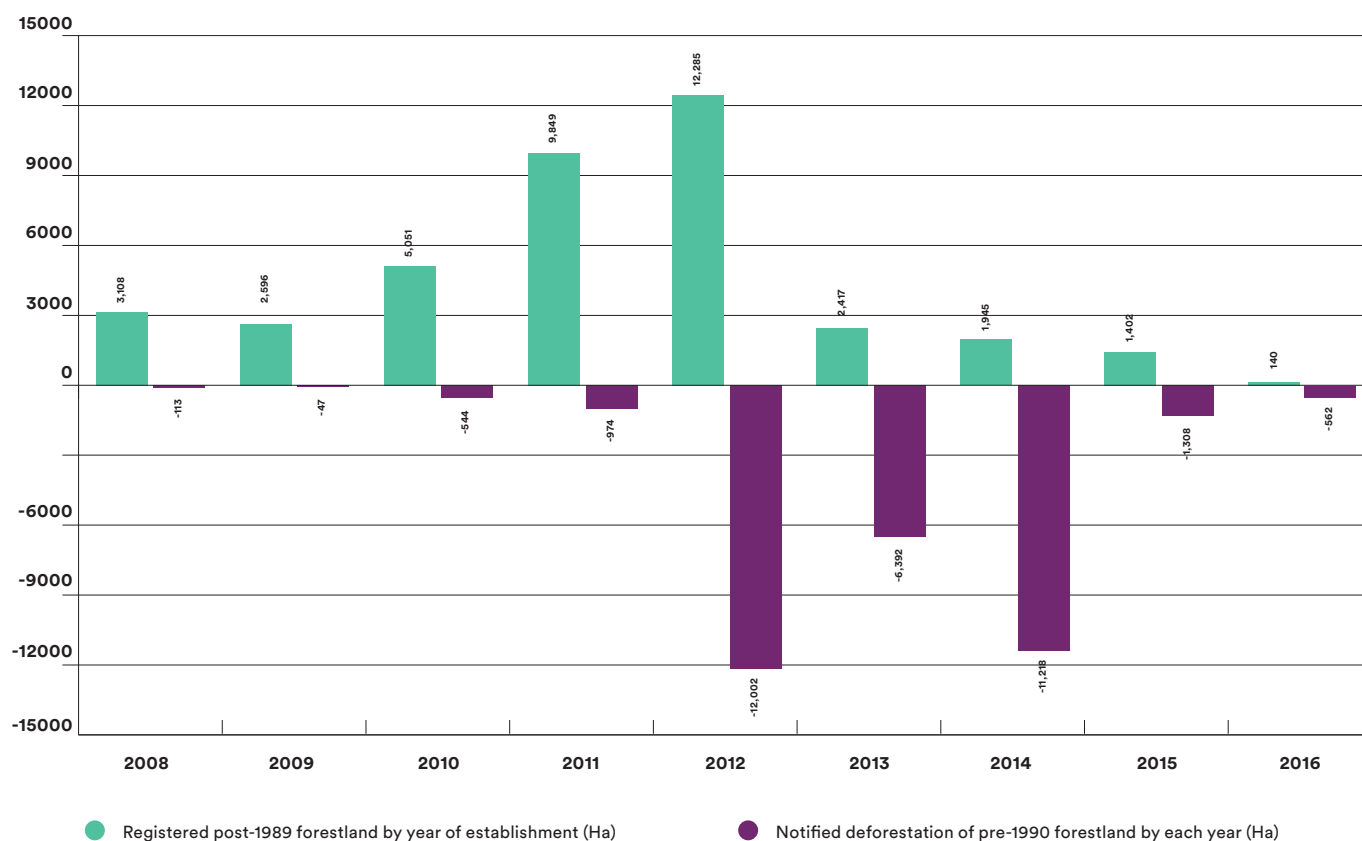
Note: Total forest land area is based on the forest definition used for reporting to the United Nations Framework Convention on Climate Change. Under this definition, some of the area reported as “not currently registered” would not be eligible for registration or an allocation under the NZ ETS. The figure for “estimated pre-1990 forest land that did not receive an allocation” includes pre-1990 forest on Crown land, which was not generally granted an allocation.

Forestry

(Continued)

FIGURE 4

Afforestation and deforestation reflected in the ETS for the period 2008-2016.



Source: Ministry for Primary Industries

Note: For afforestation and deforestation information further to that reflected in the ETS, refer to the National Inventory Report, Manley Deforestation Survey, or the National Exotic Forest Description

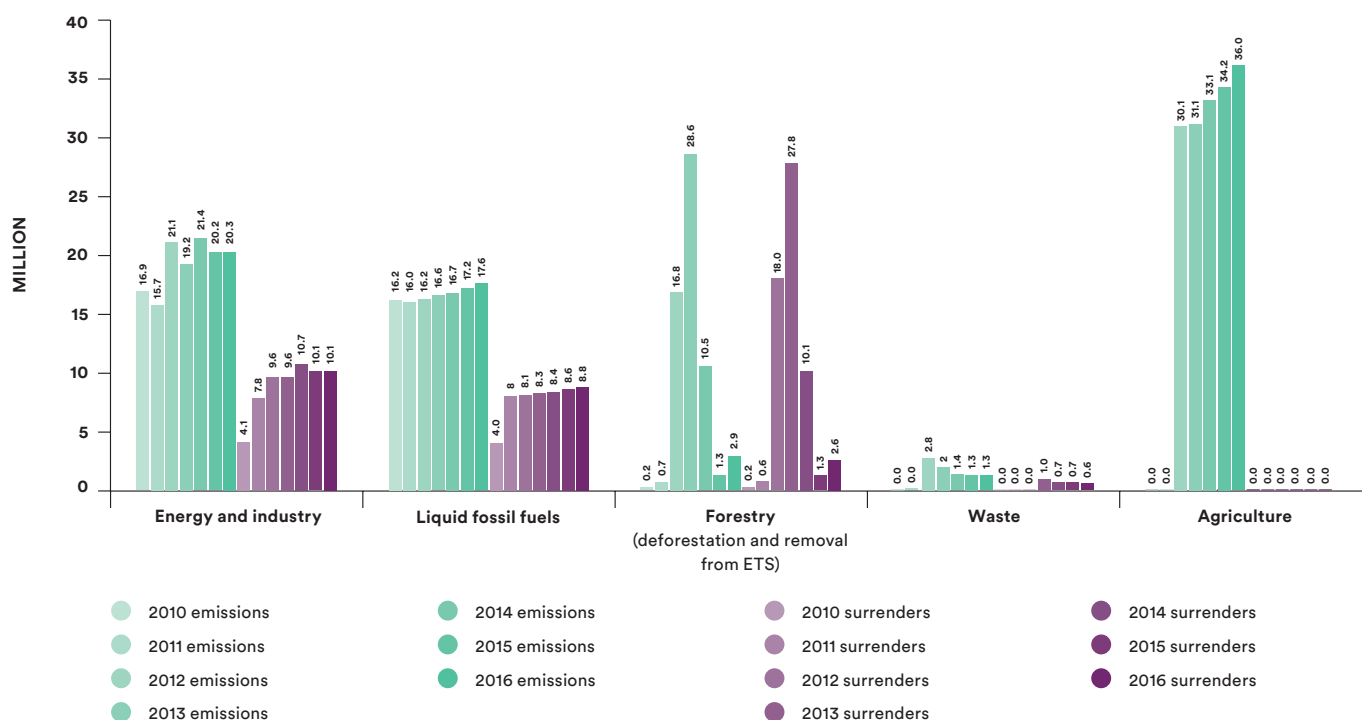
Year-on-year comparison of emissions and surrenders

The NZ ETS has now reported for seven years and we are able to compare the years. The charts on this page compare key figures between the seven years. Energy and Industry (made up of the Stationary Energy and Industrial Processes sectors), Liquid Fossil Fuels and Waste participants are required to surrender one unit for every two whole tonnes of emissions produced¹. Forestry participants are required to surrender one unit for every whole tonne of emissions produced. Agriculture participants have an obligation to report their emissions, but no corresponding obligation to

surrender units. The Waste sector and two new activities relating to Synthetic Greenhouse Gases included in the Industrial Processes sector had surrender obligations for the first time in the 2013 period.

When landowners deforest pre-1990 forest land they must notify that they are undertaking deforestation and in the following year must quantify the emissions from this deforestation in an emissions return and surrender the necessary units.

FIGURE 5
Year-on-year emissions and surrenders



Note: Emissions and surrenders for each sector may have changed from the previous factsheet due to late surrender of units, amendments to emission returns, or adjustments to the year the surrender relates to.

1. On 26 May 2016 the government decided to phase out the one-for-two transitional measure incrementally over three years, commencing 1 January 2017. Therefore next year's facts and figures will reflect this.

Year-on-year comparison of emissions and surrenders

(Continued)

Industrial allocations represent the number of NZUs allocated for the year's activities. The 2010 figure relates to only six months, whereas the subsequent years' figures relate to a whole year. The one-off fishing quota allocations were mostly completed in 2011 with one allocation occurring in 2016. The figures for pre-1990 forestry reflect both tranches of allocations. The 2012 and earlier figures relate to the first tranche, while the 2013 figure primarily reflects the second tranche of pre-1990 allocations.

The 2013 figure for post-1989 forestry relates to the first year of the second mandatory emissions reporting period.

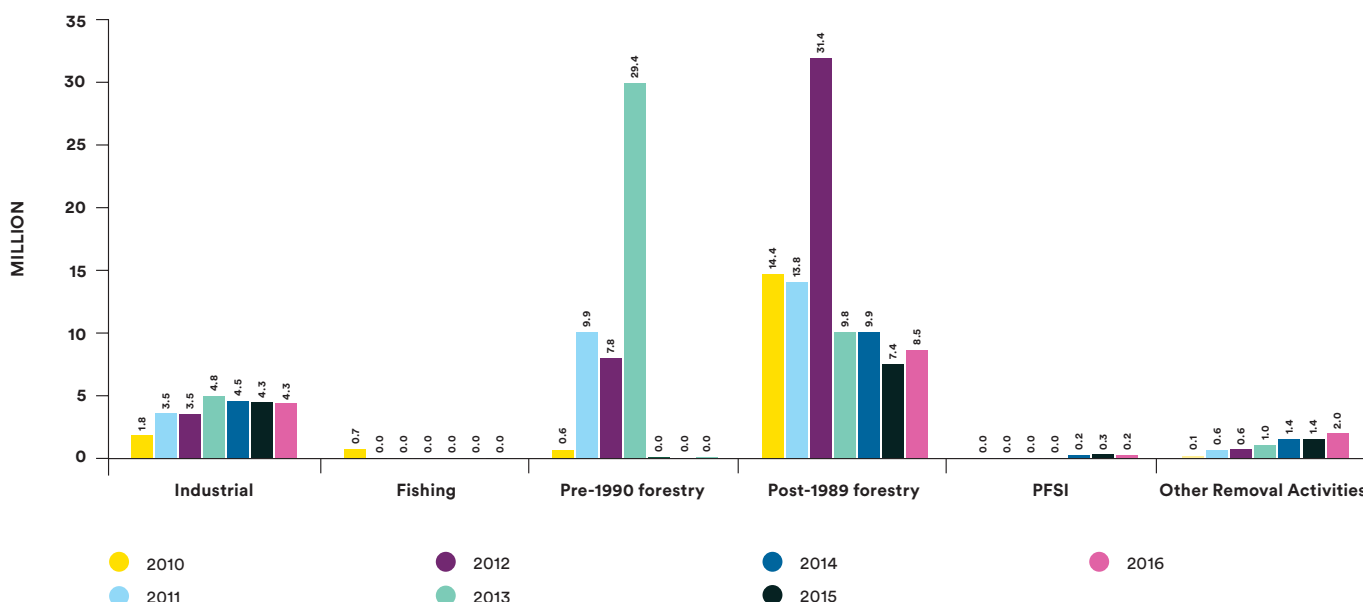
The Permanent Forest Sink Initiative (PFSI) issues units for removals on registered post-1989 forest sink land in a similar manner to the NZ ETS. From 2008 to 2012, AAUs were issued to PFSI participants. From 2013 onwards, NZUs

have been issued. Emissions returns accounting for forestry removals can be submitted annually, and must be submitted for each mandatory emissions reporting period. The figure below for 2016 is based on emissions units transferred for post-1989 forestry in the 2017 calendar year, and is subject to change as additional returns are received and processed.

Other Removal Activities refers to activities other than forestry that remove or capture emissions. This includes the export of Synthetic Greenhouse Gases and the production of products which embed carbon.

FIGURE 6

NZUs earned and allocated



The Environmental Protection Authority would like to acknowledge the help of the Ministry for the Environment and the Ministry for Primary Industries in compiling this factsheet.