



LEGALLY PROTECTED CONSERVATION LAND IN NEW ZEALAND

Environmental Snapshot
April 2010

Key points

- As of July 2009, 8,763,300 hectares (ha) of New Zealand's land (or 33.4 per cent) was legally protected for the primary purpose of conserving biodiversity.
- Legally protected public conservation land accounted for 8,525,000 ha of this and private conservation land accounted for 238,300 ha.
- Between 2006 and 2009, legally protected conservation land increased by 408,600 ha or 4.9 per cent. About three-quarters of this increase is from land acquired and protected through the High Country Tenure Review.
- When New Zealand is classified into 20 different environments, three environments have less than one per cent of their environment as legally protected land with native land cover, while three environments have more than 90 per cent of their environment as legally protected land with native land cover.
- Between 2006 and 2009, the legally protected area of the most threatened environments (ie, National Priority 1 environments) increased by 3300 ha or 3.4 per cent.
- Out of all the OECD countries, New Zealand has the highest proportion of its land area protected for conservation purposes.

New Zealand is rich in biodiversity, with an estimated 80,000 different species of native animals, plants and fungi. Compared to other countries a large proportion of our biodiversity occurs only in New Zealand, and not in any other country.

New Zealand's biodiversity has helped shape our national character and cultural identity. It provides recreational and aesthetic benefits and can perform a number of important services, such as providing clean air and water, reducing flooding, and maintaining healthy soils. These services support the country's primary production and tourism sectors.

Legally protecting land for conservation purposes is one method that can help to preserve New Zealand's biodiversity and its services. This snapshot report provides information on legally protected land in New Zealand. It includes land legally protected by the Department of Conservation, regional councils, Queen Elizabeth the Second National Trust (QEII Trust), and Ngā Whenua Rāhui. Land protected by district and city councils and other private initiatives is not included as only a limited amount of this information is in the format required for the analysis conducted in this report.

Current situation

As of July 2009, 8,763,300 hectares of New Zealand's land was legally protected for the primary purpose of conserving biodiversity. Of this, 8,401,500 hectares has native land cover. Native land cover includes land with native vegetation as well as naturally occurring non-vegetative covers such as permanent snow and ice, alpine gravel and rock, and waterways.

Legally protected public land (managed by the Department of Conservation and regional councils) accounted for 8,525,000 hectares of this and private land (protected by the QEII Trust or Ngā Whenua Rāhui) accounted for 238,300 hectares.

Recent trend (2006–2009)

Between 2006 and 2009, land legally protected for conservation purposes in New Zealand increased by 408,600 hectares or 4.9 per cent, from 8,354,700 hectares to 8,763,300 hectares. Seventy-four per cent of this increase is from land acquired and protected through the High Country Tenure Review. In 2009, legally protected land represented 33.4 per cent of New Zealand's total land area.

The area of legally protected public land increased from 8,138,500 hectares in 2006 to 8,525,000 hectares in 2009, an increase of 386,500 or 4.7 per cent.

The area of legally protected private land increased from 216,200 hectares in 2006 to 238,300 hectares in 2009, an increase of 22,100 hectares or 10.2 per cent.

Legally protected conservation land and native vegetation: By environment

Figure 1 highlights the variation in the protection of the different Level 1 LENZ environments by presenting the percentage of native land cover and legally protected native land cover for each environment.

The montane environments of the 'Permanent snow and ice' and 'Southern Alps' and the 'Ultramafic soils' environment have more than 90 per cent of their environment as legally protected land with native land cover. The generally lowland and relative flat environments of the 'Eastern South Island plains', 'Central well-drained recent soils' and 'Western and Southern North Island lowlands' environments have less than 1 per cent of their environment as legally protected land with native land cover. The locations of these environments are highlighted in figure 2.

Land Environments of New Zealand (LENZ) classifies areas with similar ecosystem characteristics and maps them as environments across New Zealand's landscape. It does this by considering factors that are likely to influence the distribution of species, including climate, landform and soils. LENZ maps New Zealand's landscapes at four different levels using 20 (Level I), 100 (Level II), 200 (Level III) or 500 (Level IV) environments. LENZ can be considered a surrogate for the likely pre-human pattern of ecosystems and their associated biodiversity.

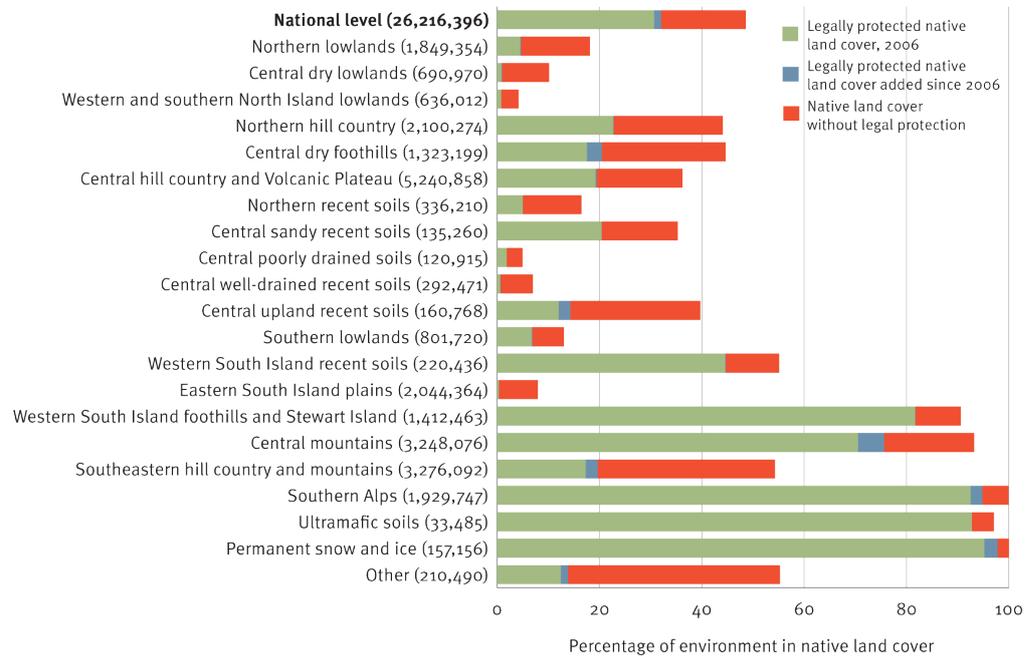
The **Land Cover Database (LCDB)** uses satellite imagery to map land cover in New Zealand. This report card draws upon LCDB2, which is based on 2002 satellite imagery.

Of all the Level I environments, 'Central mountains', 'Central dry foothills' and 'Permanent snow and ice' had the largest increases in the percentage of environment with legally protected native land cover between 2006 and 2009. The 'Ultramafic soils', 'Central poorly drained soils' and 'Northern recent soils' environments had the smallest increases.

Figure 2 shows the location of the different Level 1 LENZ environments in New Zealand and highlights the environments with the highest and lowest percentage of legally protected land with native land cover.

+ FIGURE 1

NATIVE LAND COVER AND LEGALLY PROTECTED NATIVE LAND COVER BY LAND ENVIRONMENT, 2009



Source: Ministry for the Environment, Department of Conservation, Landcare Research, QEII Trust, Ngā Whenua Rāhui.

Notes:

- (1) Native land cover is based on 2002 data from LCDB2.
- (2) The number in brackets after each environment is the area in hectares.
- (3) The 'Other' category refers to land that does not have an assigned LENZ environment, such as water bodies.

Land under legal protection for conservation purposes is managed by a number of agencies:

The **Department of Conservation (DOC)** is the central government organisation charged with conserving the natural and historic heritage of New Zealand. DOC is responsible for protecting and preserving most of the legally protected public land in New Zealand. As of July 2009, DOC legally protected approximately 8,458,400 hectares of New Zealand's land.

Regional councils are responsible for managing the natural and physical resources in New Zealand's regions. Some regional councils have regional parks that legally protect land within their region. In addition to maintaining native biodiversity, regional parks also provide a range of other services such as recreation and flood protection. As of July 2009, regional councils legally protected approximately 69,900 hectares of New Zealand's land.

The **QEII Trust** works with private land owners who wish to have some or all of their land legally protected. A covenant is registered on the title to the land, providing legal protection that binds the current and all subsequent landowners. The Trust generally contributes to the establishment of the covenant and regularly monitors the land to ensure it is managed in accordance with the covenant conditions. As of July 2009, the QEII Trust legally protected approximately 89,800 hectares of New Zealand's land.

Ngā Whenua Rāhui is a contestable fund that was established to promote the protection of native ecosystems on Māori land through kawenta (covenants). The fund generally contributes to the initial protection of the land and can contribute to the management of the land. As of July 2009, Ngā Whenua Rāhui legally protected approximately 159,200 hectares of New Zealand's land.

+ FIGURE 2
LAND ENVIRONMENTS OF NEW ZEALAND (LENZ)

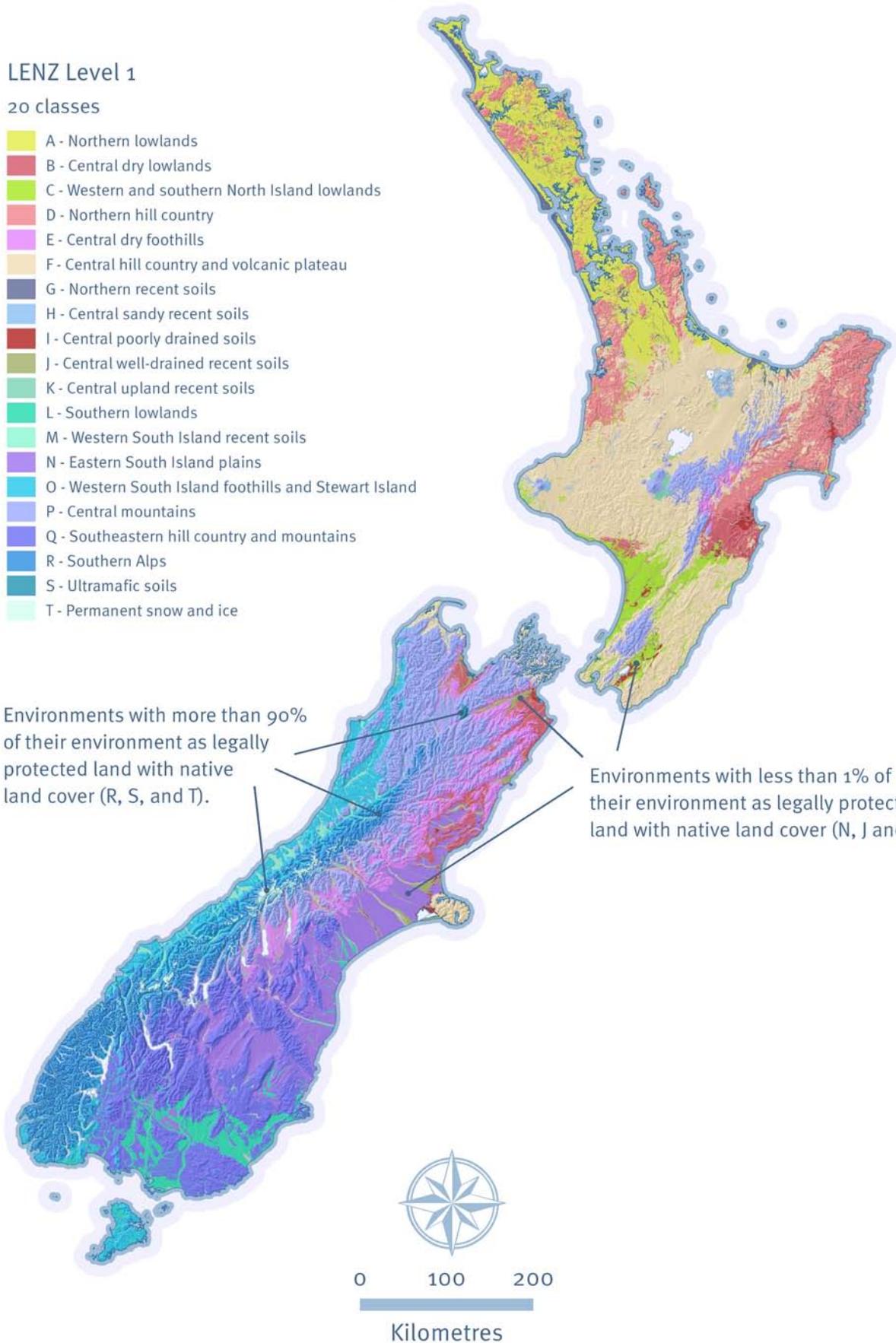
LENZ Level 1

20 classes

- A - Northern lowlands
- B - Central dry lowlands
- C - Western and southern North Island lowlands
- D - Northern hill country
- E - Central dry foothills
- F - Central hill country and volcanic plateau
- G - Northern recent soils
- H - Central sandy recent soils
- I - Central poorly drained soils
- J - Central well-drained recent soils
- K - Central upland recent soils
- L - Southern lowlands
- M - Western South Island recent soils
- N - Eastern South Island plains
- O - Western South Island foothills and Stewart Island
- P - Central mountains
- Q - Southeastern hill country and mountains
- R - Southern Alps
- S - Ultramafic soils
- T - Permanent snow and ice

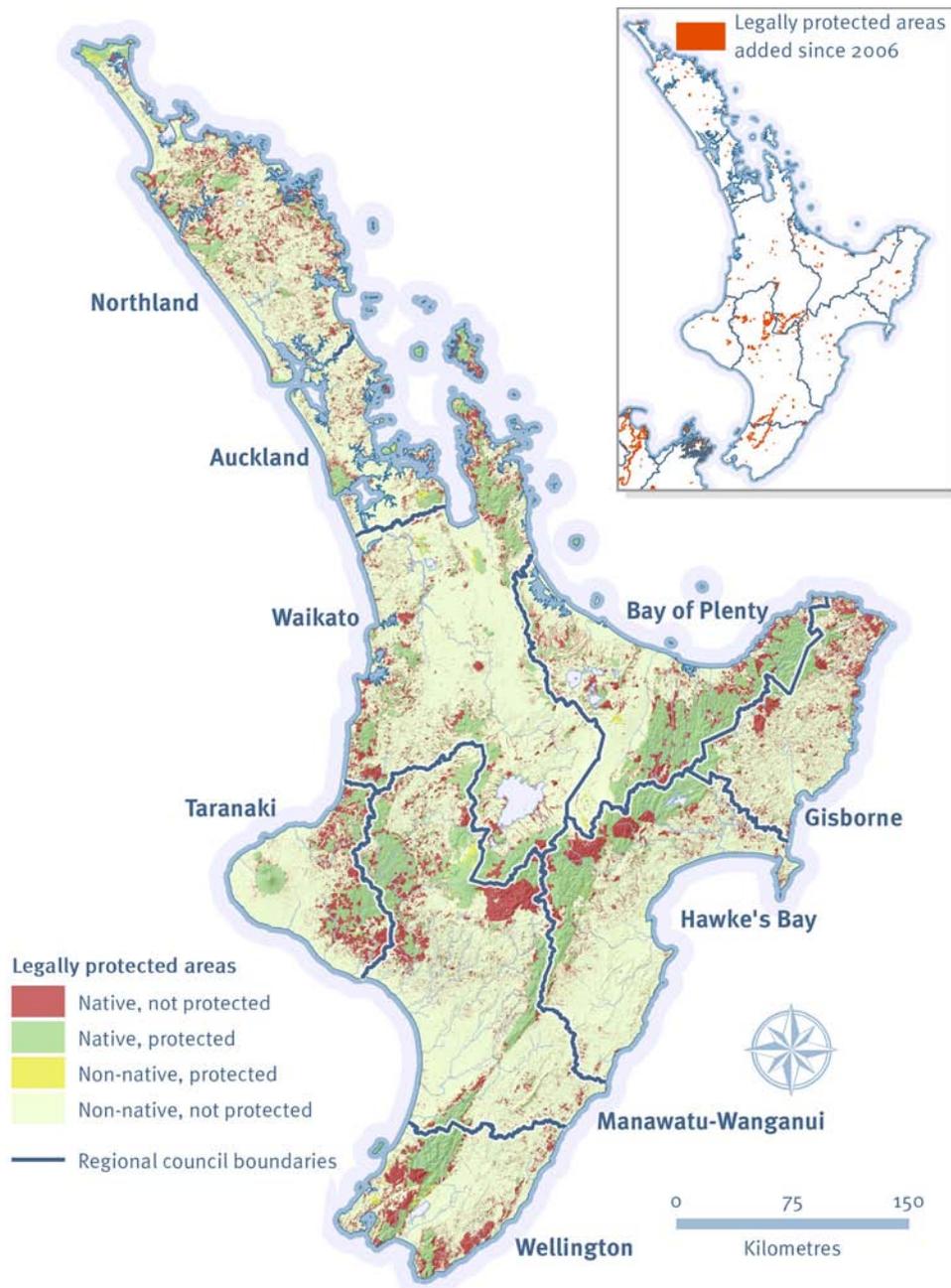
Environments with more than 90% of their environment as legally protected land with native land cover (R, S, and T).

Environments with less than 1% of their environment as legally protected land with native land cover (N, J and C).

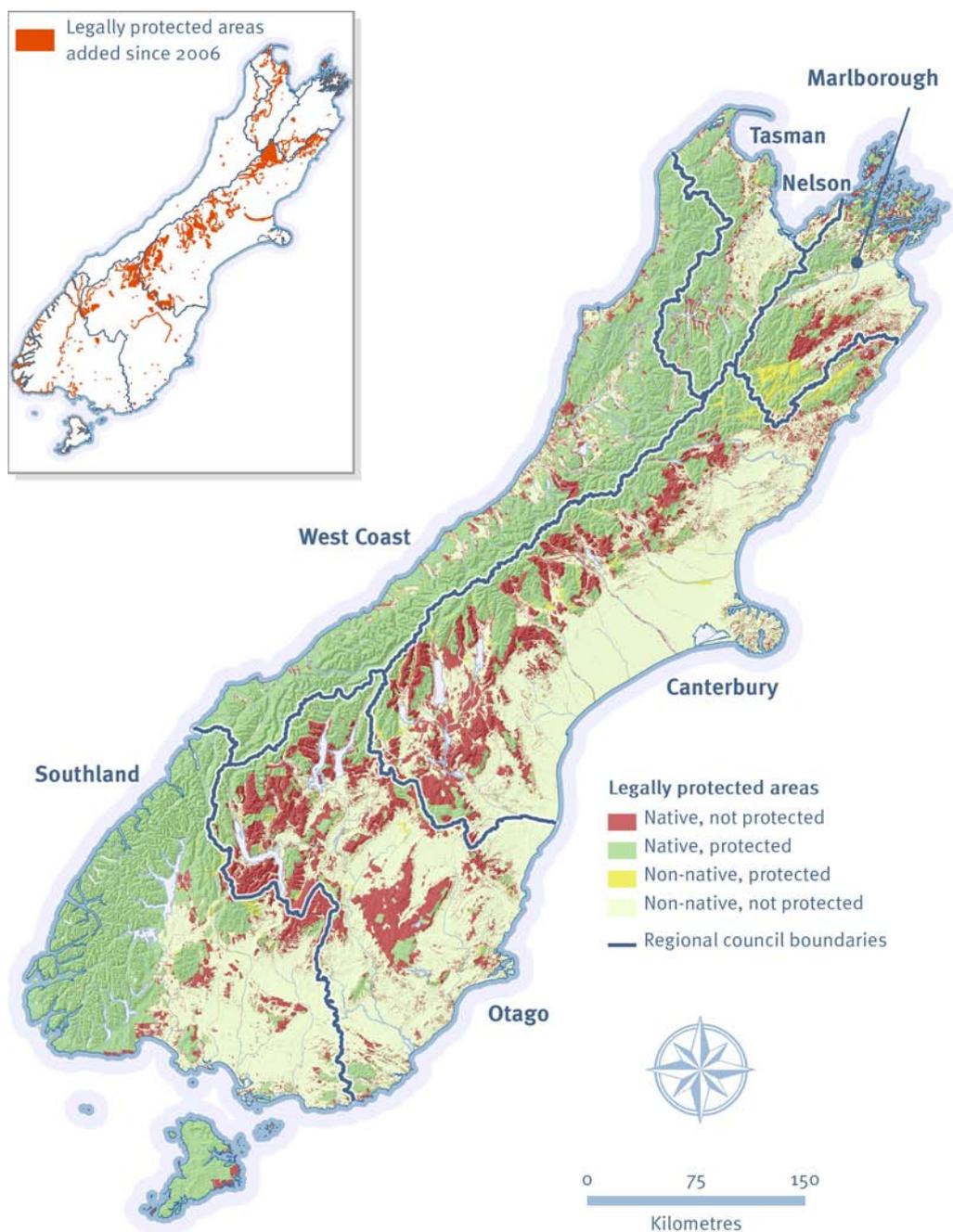


Source: Land Environments New Zealand, Ministry for the Environment.

+ FIGURE 3
LEGALLY PROTECTED AREAS IN NEW ZEALAND, 2009



REGION	AREA OF REGION (HA)	2006 AREA PROTECTED (HA)	2009 AREA PROTECTED (HA)	INCREASE IN PROTECTED LAND BETWEEN 2006 AND 2009 (HA) (%)	2009 PERCENTAGE OF REGION PROTECTED WITH NATIVE LAND COVER	2009 PERCENTAGE OF REGION PROTECTED
Northland	1,239,800	169,500	172,500	3,000 (1.8%)	12.8%	13.9%
Auckland	496,200	69,700	70,000	300 (0.5%)	12.2%	14.1%
Waikato	2,364,200	399,900	401,300	1,400 (0.3%)	16.2%	17.0%
Bay of Plenty	1,201,900	440,700	441,900	1,300 (0.3%)	35.8%	36.8%
Gisborne	836,100	103,600	104,800	1,200 (1.2%)	12.2%	12.5%
Hawke's Bay	1,406,600	297,700	298,800	1,000 (0.3%)	20.7%	21.2%
Taranaki	722,100	145,600	145,900	200 (0.2%)	19.9%	20.2%
Manawatu-Wanganui	2,212,200	418,500	429,400	11,000 (2.6%)	18.6%	19.4%
Wellington	800,300	148,200	150,500	2,200 (1.5%)	17.2%	18.8%
Total	11,279,500	2,193,400	2,215,000	21,600 (1.0%)	18.8%	19.6%



REGION	AREA OF REGION (HA)	2006 AREA PROTECTED (HA)	2009 AREA PROTECTED (HA)	INCREASE IN PROTECTED LAND BETWEEN 2006 AND 2009 (HA) (%)	2009 PERCENTAGE OF REGION PROTECTED WITH NATIVE LAND COVER	2009 PERCENTAGE OF REGION PROTECTED
Tasman	955,700	604,600	619,400	14,700 (2.4%)	63.9%	64.8%
Nelson	42,000	15,900	16,000	100 (0.2%)	34.2%	37.9%
Marlborough	1,040,100	474,300	478,300	4,000 (0.9%)	39.6%	46.0%
Canterbury	4,412,000	862,300	1,147,000	284,700 (33.0%)	23.7%	26.0%
West Coast	2,297,500	1,935,000	1,935,900	800 (0.1%)	83.2%	84.3%
Otago	3,095,700	511,600	588,100	76,600 (15.0%)	18.0%	19.0%
Southland	3,093,400	1,757,200	1,763,300	6,100 (0.3%)	56.1%	57.0%
Total	14,936,500	6,160,900	6,547,800	387,000 (6.3%)	42.1%	43.8%

Source: Ministry for the Environment, Department of Conservation, Landcare Research, QEII Trust, Ngā Whenua Rahui.

Notes:

- (1) Land protected by district and city councils and private initiatives, other than QEII Trust and Ngā Whenua Rahui, is not included.
- (2) Native land cover is based on 2002 data.
- (3) Figures are rounded to the nearest 100 hectares.
- (4) Some increases in protected land do not add up due to rounding to the nearest 100 hectares.

Legally protected conservation land: By region

Figure 3 shows that just under 20 per cent of the North Island and over 40 per cent of the South Island is legally protected. In the North Island, the Bay of Plenty region has the largest proportion of its land legally protected, and in the South Island the West Coast region has the largest proportion.

Between 2006 and 2009, the Manawatu-Wanganui region had the largest increase (2.6 per cent) in legally protected land in the North Island, and the Canterbury region had the largest increase (33 per cent) in the South Island. Approximately 78 per cent of Canterbury's increase is from land acquired and legally protected through the High Country Tenure Review. The Marlborough, Otago and Southland regions' increases were also largely due to the High Country Tenure Review (88 per cent, 96 per cent and 61 per cent respectively).

In the North Island, the Taranaki region had the smallest increase (0.2 per cent) in legally protected land and in the South Island, the West Coast region had the smallest increase (0.1 per cent).

Legally protected conservation land and native vegetation: By National Priority 1 environments

In 2007, the Government released a *statement of national priorities for protecting rare and threatened biodiversity on private land*. The priorities are also relevant to public land. National Priority 1 of the statement recommends protecting native vegetation associated with land environments (using LENZ Level IV) that have 20 per cent or less remaining in native land cover. Ecological theory estimates that the rate of biodiversity loss increases dramatically when the amount of available habitat of an environment drops below 20 per cent of its original extent (Ministry for the Environment, 2007).

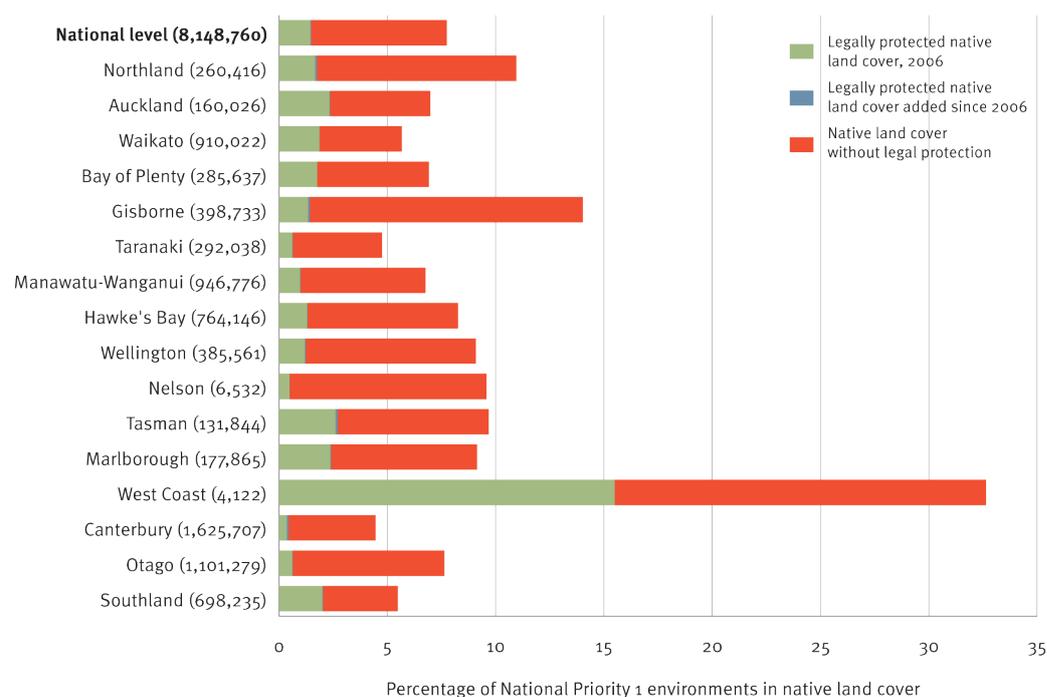
In 2009, 98,700 hectares of National Priority 1 environments with native land cover were legally protected, an increase of 3,300 hectares from 2006.

Figure 4 presents the percentage of remaining native land cover and legally protected native land cover in National Priority 1 environments for each region.

Of all the regions, Tasman and Northland had the largest increases in the percentage of National Priority 1 environments with legally protected native land cover between 2006 and 2009. The Bay of Plenty and West Coast regions had the smallest increases.

+ FIGURE 4

NATIVE LAND COVER AND LEGALLY PROTECTED NATIVE LAND COVER IN NATIONAL PRIORITY 1 ENVIRONMENTS (IE, ENVIRONMENTS WITH 20 PER CENT OR LESS REMAINING IN NATIVE VEGETATION) BY REGION, 2009



Source: Department of Conservation, Landcare Research, QEII Trust, NgāWhenua Rāhui.

Notes:

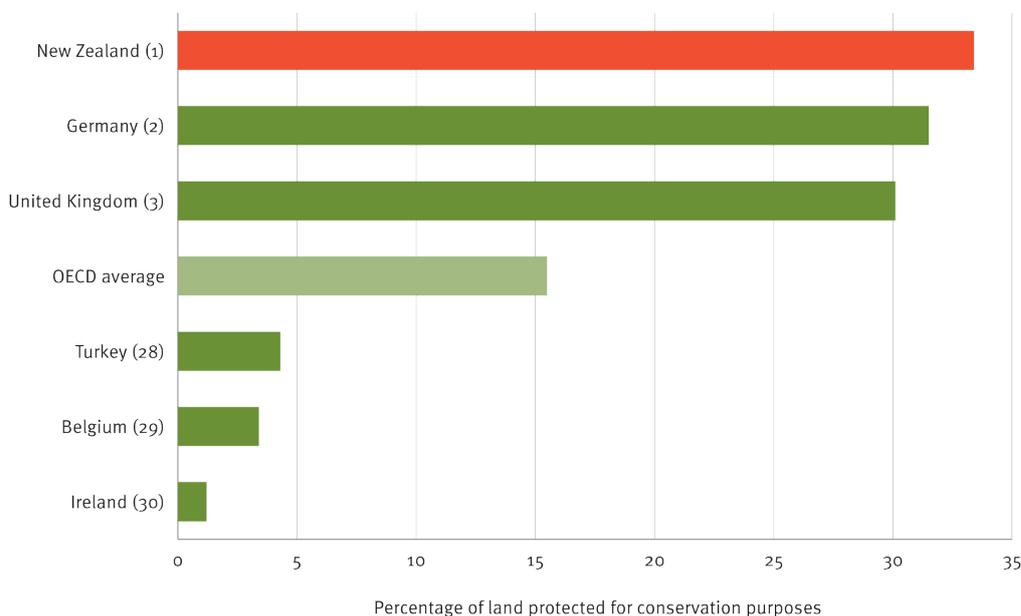
(1) Native land cover is based on 2002 data.

(2) The number in brackets after each region is the area of National Priority 1 environments in the region, in hectares.

International comparison

By international comparison, New Zealand has a large proportion (33.4 per cent) of its land area legally protected for conservation purposes. Figure 5 shows New Zealand had the highest proportion of land area protected for conservation purposes out of all 30 OECD countries.

+ FIGURE 5
LAND AREA PROTECTED FOR CONSERVATION PURPOSES IN THE OECD



Source: OECD 2007, Department of Conservation, Landcare Research, QEII Trust, NgāWhenua Rāhui.

Notes:

- (1) 2009 data is presented for New Zealand only. 2007 data is presented for the other countries shown.
- (2) Classification of protected areas may differ within each country.
- (3) The number in brackets after the country is the rank out of 30 OECD countries.

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FOR MORE INFORMATION:

- about the state of New Zealand's environment see www.mfe.govt.nz/environmental-reporting
- about the Ministry for the Environment's reporting on New Zealand's biodiversity contact Josh Fyfe at josh.fyfe@mfe.govt.nz

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