

# 1 Background to the review

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## 1.1 The challenge of climate change and New Zealand

Climate change matters for New Zealand. New Zealand is vulnerable to the impacts of climate change through its coastline, the strong role of agriculture in its economy, its infrastructure, and its unique ecosystems. However, some sectors and regions could benefit under a modest amount of warming. In general, the balance between positive and negative impacts is expected to become more negative as the amount and rate of warming increases.

Globally significant changes, such as melting of ice sheets and associated sea-level rise and changes in ocean circulations, would impact on New Zealand just as they would impact on any other part of the world. Major disruptions associated with large-scale climate change impacts occurring elsewhere could affect New Zealand through diverting flows of goods, services and financial resources.

## 1.2 The United Nations Framework Convention on Climate Change

In 1993, New Zealand ratified the United Nations Framework Convention on Climate Change (UNFCCC). Most nations are parties to the Convention.

The UNFCCC sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. Under the Convention, governments:

- gather and share information on greenhouse gas emissions, national policies and best practices
- launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries
- cooperate in preparing for adaptation to the impacts of climate change.

## 1.3 The Kyoto Protocol

In 1997, parties to the Convention completed negotiations on the Kyoto Protocol. The Protocol shares the Convention's objective, principles and institutions, but significantly strengthens the Convention by committing so-called "Annex I Parties"<sup>1</sup> to individual, legally binding targets to limit or reduce their greenhouse gas emissions over the period 2008 to 2012.

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<sup>1</sup> Annex I Parties are the industrialised countries, and countries with economies in transition (eg, Russia and the Ukraine).

Only parties to the Convention that have also become parties to the Protocol will be bound by the Protocol's commitments. The individual targets for Annex I Parties add up to a total cut in greenhouse gas emissions of at least 5% from 1990 levels in the commitment period 2008 to 2012. New Zealand's target is 0% from 1990 levels. To date, 156 parties to the UNFCCC have become parties to the Kyoto Protocol.

New Zealand ratified the Kyoto Protocol in 2002. In its deliberations on whether to do so, Cabinet was advised that there were five reasons why it was in New Zealand's interests to become a party to the Kyoto Protocol (New Zealand Government, 2002d):

- increased climate change is predicted if global emissions of greenhouse gases continue to grow without constraint, with significant long-term adverse effects on the global economy, societies and ecosystems
- more than any other developed nation, New Zealand depends for its prosperity on a stable climate. For New Zealand, threats to human health, land and water quality, infrastructure, biosecurity and native ecosystems are also significant
- climate change is a global problem and effective action to counter it is beyond the ability of any single country. The Kyoto Protocol is the only viable international response. The Protocol provides a means by which, over the long term, the risks to New Zealand can be mitigated
- abandoning the Protocol would damage New Zealand's credibility and its reputation as a global citizen – not only in climate change fora but also over a wide range of international issues
- New Zealand's effectiveness in climate change negotiations means it is one of the few developed countries that stands to make a small net economic gain from the first Kyoto Protocol commitment period (CP1). Economic benefits are also likely to include technology and energy-efficiency improvements.

In relation to the last reason above, it was estimated that New Zealand would have a surplus of Kyoto "emission units", which it could sell to other countries. This was because it was expected that the offset provided by New Zealand's forest sinks as a result of forest plantings since 1990 would more than compensate for growth in gross emissions. That surplus was estimated at 50 million tonnes of CO<sub>2</sub>-equivalent (50Mt CO<sub>2</sub>e). This would be valued at \$430 million at prevailing carbon prices.

## The policy response

In 2002, the Government agreed to a climate change policy package with the following key elements:

- a carbon tax on energy, industrial, and transport emissions, capped at \$25 per tonne of CO<sub>2</sub>e
- Negotiated Greenhouse Agreements (NGAs) for “at risk” large emitters
- Projects to Reduce Emissions (PRE), which would provide Kyoto units to induce projects that would generate additional emissions reductions
- industry and government funding of research in the agricultural sector.

Cabinet agreed that a review of climate change policies might be required in 2005 to confirm that New Zealand’s policies will allow our international commitments under Kyoto to be met (New Zealand Government, 2002c).

### 1.4 Review of Climate Change Policies – background and scope

#### 1.4.1 Background

In May 2005, the Ministry for the Environment completed revised projections of New Zealand’s greenhouse gas emissions. These indicated that New Zealand would fall short of meeting its Kyoto Protocol target by 36Mt CO<sub>2</sub>e. The Ministry for the Environment recently commissioned an independent review of these projections. The review confirmed that the methodologies employed to project emissions and sinks across the different sectors are generally sound and reasonable in their approach.

The Government considered that the significant change in the outlook for New Zealand meeting its Kyoto obligations justified an analysis of, and consideration of changes to, the current emissions-reduction goal<sup>2</sup> and the climate change policy mix. Further, in the context of this projected Kyoto deficit, the Government agreed that it was also important to clarify New Zealand’s position on climate change goals **beyond 2012**.

The Convenor of the Ministerial Group on Climate Change took a paper to Cabinet in the first half of June 2005 (Climate Change Annual Report). Cabinet noted “that an in-depth review will be conducted, and reported back to Cabinet by 31 October 2005, on the current policy settings and objectives”.

Terms of reference for the review were subsequently agreed by Ministers.

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<sup>2</sup> The Government’s current strategic climate change goal is that “New Zealand should have made significant reductions in greenhouse gas emissions relative to “business as usual” and be set towards a permanent downward path for total gross emissions by 2012”.

### 1.4.2 Objectives of the review

The Government agreed to the following four objectives for the review:

- 1 to identify, at a high level, an appropriate mix of policies that New Zealand should adopt to meet its obligations in CP1 of the Kyoto Protocol and beyond, including:
  - the appropriate balance between further domestic climate change mitigation policies and the use of Kyoto flexible mechanisms such as International Emissions Trading
  - the appropriate economic agent to undertake decisions about this balance; ie, whether some or all of New Zealand's climate change liabilities should be devolved from the Government to other economic entities such as firms and individuals
  - how any devolution of New Zealand's emissions-reduction obligations should operate
  - the broad direction of any further, or alternative, policies to mitigate New Zealand's emissions
  - the implications of these policy choices for New Zealand's strategic climate change goal, including whether this goal needs updating
- 2 to identify the broad implications for New Zealand generally and, in particular, for other relevant Government key priorities such as sustainable development, economic growth, social inclusion, and labour market participation, of continuing with the current climate change policies or adopting any alternative or additional climate change policies that emerge in the course of the review
- 3 to identify the broad implications of New Zealand's revised emissions projections, and any consequential alternative or additional climate change policies that are recommended, for prospective negotiations on New Zealand's international climate change mitigation obligations beyond 2012
- 4 to recommend the necessary details of a New Zealand negotiating mandate and strategy for participation in the 11th Conference of the Parties to the UNFCCC and the 1st Meeting of the Parties under the Kyoto Protocol in Montreal in November 2005.

### 1.4.3 Scope of the review

#### **Objectives 1 and 2: New Zealand climate change policies and objectives**

The review should examine, at the strategic level, the appropriateness, likely effectiveness, and costs and benefits of New Zealand's climate change policies, including:

- price-based policy and measures, including carbon taxes and emissions trading
- the incidence of climate change obligations – should obligations be held by governments or firms and individuals?
- forestry policy and measures

- agriculture policy and measures
- transport policy and measures
- non-transport energy policy and measures
- using the flexible mechanisms of the Kyoto Protocol – International Emissions Trading (IET), Joint Implementation (JI), and the Clean Development Mechanism (CDM).<sup>3</sup>

The review will assess current policy settings against an analysis of any feasible alternatives (“alternative policy settings” may involve augmenting current policies, replacing current policies, or a mix of both).

The review will assess the implications of confirming or changing the current objectives and policy package, including an assessment of the impact of adopting different emissions-reduction targets and strategies on other Government objectives, including, but not limited to, those set out under Objective 2.

### **Objectives 3 and 4: Climate change obligations beyond 2012**

The review will examine the implications of known information on New Zealand emissions trends for any obligations that New Zealand may choose to adopt beyond 2012. In particular, the review will make recommendations on:

- New Zealand’s preferences on how a post-2012 international climate change framework should be negotiated
- preferences around the different climate change “architectures” that are being identified and debated internationally
- those features of a climate change framework that are important to New Zealand, including any features that would be necessary to secure New Zealand’s participation
- strategies for achieving these objectives internationally
- identification of risks in the post-2012 period and available mitigation strategies
- whether, and when, New Zealand should consider adopting a long-term climate change goal.

## **1.5 Approach to the review**

The review provides the Government with options for climate change mitigation policies. These include “economy-wide” measures such as carbon taxes and emissions trading. The review also provides mitigation options for specific sectors of the economy, such as transport, energy, and agriculture.

The intention of the Review of Climate Change Policies is to help the Government make some strategic choices about the direction of climate change mitigation policies in New Zealand. Depending on those choices, further work will be required to develop the detail

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<sup>3</sup> For an explanation of these mechanisms, see footnote 9.

of the Government's preferred approaches. **For the most part**, the review avoids making specific recommendations on policy direction, or expressing a preference for a particular policy. Rather, it analyses the advantages and disadvantages of options, so providing a framework to help the Government consider which policies best serve the Government's objectives. In some areas, the review does make specific recommendations for further work, especially where there is a premium on that work commencing quickly.

The review is primarily concerned with climate change mitigation responses, and the economic impact of those responses. It does **not** seek to cover all climate change policy issues that are important to New Zealand. Specifically, the review does not consider:

- adaptation policies to deal with climate change in New Zealand
- the performance of New Zealand in measuring and reporting on our Kyoto Protocol commitments.

The review took as given that New Zealand would meet its existing obligations under the Kyoto Protocol in the period 2008 to 2012.

The review was undertaken by a project team<sup>4</sup> within the Ministry for the Environment. This team comprised officials from the following agencies:

- Ministry for the Environment.
- Ministry of Agriculture and Forestry (MAF)
- Ministry of Economic Development (MED)
- the Treasury
- Ministry of Transport (MOT).

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<sup>4</sup> The Project Team wishes to acknowledge the assistance it received from many officials from a number of other New Zealand Government agencies, including Ministry of Foreign Affairs and Trade, the Energy Efficiency and Conservation Authority, and Te Puni Kokiri.