

## **Climate change: The Government's preferred policy package for agriculture and forestry**

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### **Abstract**

*In February 2002 the Government agreed in principle to ratify the Kyoto Protocol. Once the Protocol is in force, New Zealand will be obliged to reduce greenhouse gas emissions to 1990 levels, between 2008 to 2012 (the first commitment period) or take responsibility for any excess. On 30 April 2002 the Government released its preferred policy package to respond to climate change and implement the Protocol domestically.*

*The presentation outlines the Government's preferred policy package, with particular focus on the agricultural sector. It highlights those areas where policy is to be further developed and raises questions for the agriculture sector's consideration.*

*The release of methane and nitrous oxide, mainly from agriculture practices, accounts for around 55% of New Zealand's greenhouse gas emissions. Agricultural emissions are expected to exceed 1990 levels by around 25 million tonnes CO<sub>2</sub> equivalent over the first commitment period. Methane from deer is expected to be the second largest contributor to this increase, with emissions from the deer sector forecast to rise by more than 500% from 1990 levels.*

*The Government has agreed not to impose emissions charges on agricultural emissions of methane and nitrous oxide. In return, the agriculture sector will be expected to make significant additional investment in research into reducing agricultural emissions. The Government's preferred approach is for the sector to fund such research voluntarily, though the Government is prepared to impose a levy if a sector-led solution cannot be found.*

*The Government proposes introducing an emissions charge from 2007, which will be capped at \$25 per tonne of CO<sub>2</sub> – with revenue generated recycled back into the economy. All New Zealanders who use energy will be affected to a greater or lesser extent. Incentives, through a mechanism called 'Projects', will be available to encourage the uptake of climate friendly technologies and investments. Companies that meet competitiveness at risk criteria may be entitled to Negotiated Greenhouse Agreements to address their competitiveness concerns. Each of these policies will have implications for New Zealand's agricultural sector*

## Introduction

On 30 April 2002 the Government announced its preferred policy package to address climate change and implement the Kyoto Protocol. The package has implications for all New Zealanders who use energy, including farmers. There are also specific policies that affect agriculture and forestry.

### Preferred Policy Package – Summary of key features

The key aspects of the preferred policy package are:

- None of the new policies will be implemented for the first commitment period until the Kyoto Protocol comes into force
- The new policies build on the foundations of existing policies
- Introduction of a Projects mechanism to encourage the early adoption of technologies that reduce greenhouse gas emissions
- Introduction of Negotiated Greenhouse Agreements for competitiveness-at-risk firms
- No price measures before 2007
- An emissions charge for the first commitment period will be capped at \$25 per tonne of CO<sub>2</sub> equivalent
- Revenue gathered from an emissions charge will be recycled
- Retention of sink credits and their associated liabilities
- No charge for emissions of methane and nitrous oxide from the agriculture sector, provided research into reducing the emission of these gases is carried out.

### Preferred Policy Package– Summary of key features for Agriculture

The key aspects of the preferred policy package in regards to agriculture are:

- No emissions charge imposed on methane or nitrous oxide for at least the first commitment period
- Increased research into reducing agricultural emissions - implemented through a negotiated partnership approach with sector groups
- The level of research funding will be established in discussion with the sector and experts in the field, and will be reviewed from time to time
- If the sector is unwilling to work with the Government to invest in a sustained research effort and encourage the uptake of findings, a research levy will be imposed on the agricultural sector to fund research
- Energy used on-farm, such as fuel and electricity, will be subject to the emissions price that is applied generally to the New Zealand economy
- Processors of agricultural products and potential new investors in processing who are competitiveness-at-risk will have access to the Negotiated Greenhouse Agreements mechanism.

### Options considered for the agriculture sector

Three options were considered for agriculture:

- an emissions charge on all emissions
- a mandatory levy to cover excess emissions from the sector over its 1990 levels during the first commitment period
- research aimed at finding technical solutions for reducing agricultural greenhouse gas emissions, funded by either:
  - the agriculture sector agreeing to invest in a research programme. This could be implemented through negotiated research agreements between the sector (or sector groups) and the Government; or
  - a mandatory research levy applied prior to and during the first commitment period.

## Research into emissions reductions

The preferred option is investment in research as the best way to move the agricultural sector to the point where it would not need to reduce stock units to reduce emissions. Moreover, research that reduces methane emissions is likely to increase on-farm productivity through increased efficiency in food conversion. It may also have significant commercial value, particularly if it could be applied in other countries looking to reduce greenhouse gas emissions. Similarly, reductions in nitrous oxide may have productivity benefits or environmental benefits such as improved water quality. In this sense, research should pay for itself if appropriate technical solutions are found.

The most direct, and probably the most certain way to ensure that adequate funding is made available for research would be a research levy imposed on the sector in the first commitment period. A research levy of 20 cents per stock unit per year would raise \$20 million for research annually. Further consultation with scientific experts and the sector is needed before an initial budget for research can be determined. However, the Government anticipates that funding in the order of \$20 million per annum is likely to approximate the research effort needed.

Importantly, there is no need to impose a research levy if the agricultural sector is prepared to work with Government to implement the research needed. A voluntary, research-based approach recognises the circumstances for the agriculture sector and focuses on developing technical solutions for reducing non-CO<sub>2</sub> emissions over the medium term.

If practical solutions emerge from the research, these may be developed and adopted because they have benefits other than reducing greenhouse gas emissions, such as increasing productivity. If research results are not adopted for other commercial reasons, then Project-based incentives might be used to encourage reduction of emissions during the first commitment period.

The Government wants to work with the agricultural sector to agree the structure, governance and funding of a body to purchase research into the mitigation of agricultural greenhouse gases.

## Preferred Policy Package – Summary of key features for Forestry

The key aspects of the preferred policy package in regards to forestry are:

- The Government retains all sink credits and harvest/deforestation liabilities arising from forests planted since 1990 (“Kyoto forests”).
- Deforestation liabilities are not devolved to owners of non-Kyoto forests (those planted before 1990), capped at five percent of the forest area expected to be harvested over the first commitment period of the Kyoto Protocol, 2008 – 2012.
- In principle, New Zealand will not account for forest management under Article 3.4 of the Protocol. This is particularly relevant to owners of all forests (both indigenous and exotic) established before 1990. It means New Zealand will not face any liabilities for the loss of carbon through either harvesting or pest damage, over the Protocol's first commitment period. It also means New Zealand would not receive credits from the growth of much of its regenerating scrubland.
- A mechanism will be developed to encourage the establishment and enhancement of Kyoto forest sinks (this may be part of the general Projects mechanism).
- A further mechanism will be developed to encourage the establishment and enhancement of permanent (non-harvest) forest sinks. This will be of particular interest to owners of highly marginal pastoral land.
- Under the Protocol, New Zealand must determine its definition of forest by specifying values for certain key parameters from within set limits; New Zealand will select parameters at the upper limit of each of the allowable ranges.

- Wood processors and potential new investors in wood processing who meet the criteria for being competitiveness-at-risk would be able to enter into Negotiated Greenhouse Agreements with the Government.
- All forestry sector participants will have access to the Projects mechanism.