

The Chair
Cabinet

Annual Report on Climate Change Policy Implementation 2004/2005

Proposal

1. To report progress on the implementation of government's climate change policy (CAB Min (02) 26/16 (7 October 2002) and POL Min (04) 10/3 refer). This report covers the period since the last annual report to May 2005.

Executive summary

2. This report provides a summary of progress on the implementation of the climate change policy package over the last year and highlights changes to the institutional arrangements for climate change policy delivery.
3. The report also provides an overview of the national trend in greenhouse gas emissions based on the most recent national inventory (2003) and the net national emissions and removals projections for the period 2008 to 2012 (Annex 1 – Projected balance of units during the first commitment period of the Kyoto Protocol and Annex 2 – Energy Sector CO₂ Projections to 2020 (Interim Update)).
4. New Zealand has continued to develop its national system for the greenhouse gas inventory. This work includes establishing a carbon monitoring and accounting system to meet the increasingly comprehensive reporting requirements set by the UNFCCC, and including the Kyoto Protocol.
5. The carbon monitoring and accounting system requires a major financial investment for New Zealand and is a critical project to ensure we meet internationally agreed criteria for the quality, robustness and completeness of our inventory. Its implementation is essential for New Zealand's ability to claim forest sink credits and to participate in international emissions trading.
6. The estimates of New Zealand's "most likely net position" in the Kyoto Protocol commitment period 2008 to 2012 indicate, for the first time, that New Zealand may have a net deficit relative to its 1990 emissions. This reflects the forecast continuation of growth in gross emissions, particularly those arising from increased electricity generation and transport, in an expanding economy
7. As with all forecasts, the results are dependent on the quality of the data and assumptions used in the models. Officials have invested considerable efforts in improving the components used in the calculations. In particular, the energy model used by the Ministry of Economic Development has undergone significant revision over the last 12 months. Further areas for improvement have been highlighted by independent reviewers and these issues are being progressively addressed.

8. I have requested officials to commission an independent peer review of the methodologies used to calculate the projected balance of units. This will provide guidance on the confidence we can place in the figures and will help to ensure that robust projections are provided in future years
9. The current best estimates suggest a range of approximately 50 Mt CO₂e, representing a 95% confidence limit, between the optimistic and pessimistic scenarios.
10. This report shows that New Zealand's total greenhouse gas emissions in 2003 equalled 75.3 million tonnes of CO₂ equivalent (Mt CO₂e), which is 22.5% above the 1990 level. Total emissions rose 2.9% from 2002. This relatively high increase is in part due to the impact of the dry winter weather conditions that increased reliance on coal-fired electricity generation.
11. The most likely estimate for emissions during the five year commitment period indicates a net deficit in the region of 36 MT CO₂e.
12. It is important to note however, all scenarios show New Zealand's greenhouse gas emissions continuing to grow relative to the 1990 base year in line with the strong growth in the economy. This growth trend is forecast to continue throughout the Kyoto Protocol's first commitment period (2008-2012, CP1).
13. At the technical level, once the carbon monitoring system is put in place and becomes operational, further refinements to the data on sinks will become available. In the shorter term, MFE and MED will continue to review their computer models to ensure they are utilising the most appropriate assumptions and data.
14. The consequences of this strong growth trend are not discussed in depth in this report. However, as the forecast rate of growth is higher than envisaged when the policy package was approved in 2002, and the impact of existing policies are only beginning to take effect, a more detailed consideration of the implications is required. I have instructed officials to conduct a fundamental review of our core objectives and policy approach. The resulting paper, with proposals for additional policy responses, will be put forward in a Cabinet paper by 31 October 2005.
15. The General Manager, Sustainable Industry and Climate Change now leads the management of the climate change function in the Ministry for the Environment. The reporting and science functions have been transferred to the new Reporting and Review Group in the Ministry.
16. Key elements of progress on implementation of the policy package include:
 - announcement in May 2005 of the initial rate of the carbon tax together with the release of a consultation document on its design. This is the main pillar of policy and introduces for the first time a market price for emissions;
 - agreement in April 2005 to the implementation of an acceleration programme for Negotiated Greenhouse Agreements. These agreements are an important part of the policy as they provide carbon tax relief to the major users in return for their moving to world's best practice for energy use;
 - conclusion of a successful second tender round for the Project to Reduce Emissions programme;

- agreement in August 2004 to the policy to encourage small to medium sized enterprises (SMEs) to improve energy efficiency and reduce greenhouse gas emissions and in March 2005, confirmation of additional policy to assist the most energy-intensive of these businesses;
- coverage of 45% of the NZ population by councils participating in the *Communities for Climate Protection* programme
- announcement in April 2005 of the Forest Industry Development Agenda;
- Phase 2 of the *4 Million Careful Owners* Public Awareness and Education Campaign, undertaken from August 2004 to February 2005 to continue to build awareness of the effects of climate change and what New Zealanders can practically do to reduce greenhouse gas emissions;
- continuation of under-pinning science activities including to ensure New Zealand participation in the Intergovernmental Panel on Climate Change process.

Background

17. New Zealand is a Party to both the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol. The UNFCCC has been ratified by 188 countries. Following Russian ratification of the Kyoto Protocol in November 2004, the Protocol entered into force on 15 February 2005.
18. The government's climate change policy package was approved in October 2002. The measures build on a foundation of existing policies and strategies (National Energy Efficiency and Conservation Strategy; the New Zealand Transport Strategy; the New Zealand Waste Strategy; the Growth and Innovation Framework; and the Sustainable Energy work programme within the Sustainable Development Programme of Action).
19. The policy package introduced new policies - a carbon charge from 2007, negotiated greenhouse gas agreements (NGAs) for firms deemed to be "competitiveness-at-risk", and a programme of Projects to Reduce Emissions. It also set in train the development of particular policies for small and medium sized enterprises and the enhancement of sector based activities including for local government, agriculture, and forestry.
20. I recently provided Cabinet with an overview of the Government's work programme to prepare our international and domestic climate change policies and to meet our reporting obligations now that the Kyoto Protocol has entered into force (POL Min (05) 4/11 refers). This paper reviews the key achievements for FY 2004/2005.

Institutional arrangements for climate change policy delivery

21. To allow for more effective delivery of work programmes within the New Zealand Climate Change Office, the Ministry for the Environment carried out restructuring in January 2005. Two main changes occurred during this restructuring. Firstly the Chief Executive of the Ministry disestablished the position of 'Director of Climate Change Office' and transferred the lead

management of the climate change function to Bill Bayfield, General Manager, Sustainable Industry and Climate Change Group.

22. Secondly, a new group entitled 'Reporting and Review' was formed within the Ministry. The purpose of this group is

To influence behaviours, decisions and policies affecting the quality of the New Zealand environment through effective marketing of relevant and constructive environmental information.
23. The following functions which fit closely with the Reporting and Review group's purpose were transferred from the Climate Change team to the Reporting and Review Group:
 - Carbon Monitoring & Accounting System
 - National Inventory Reporting
 - International Reporting
 - Science Monitoring
24. The Climate Change Team works with officials from The Treasury, the Ministry of Economic Development, the Ministry of Agriculture and Forestry, the Ministry of Foreign Affairs and Trade, the Department of Prime Minister and Cabinet, the Ministry of Transport, the Energy Efficiency and Conservation Authority, Te Puni Kokiri and the Ministry of Research, Science and Technology through the Senior Officials Steering Group.
25. The Senior Officials Steering Group reports to the Climate Change Chief Executives Forum, which in turn report to the Ministerial Group on Climate Change, which I convene.
26. Terms of reference were established for the Senior Officials Steering Group, which defined the purpose and membership of the group as follows:

The Climate Change Senior Officials Steering Group's purpose is to ensure the coordination of the whole of government climate change programme, to assist in the development and review the climate change policy package, and provide appropriate recommendations and advice on climate change policy issues to the Climate Change Chief Executives Forum and Ministers.
27. Climate change officials assisted in the whole of government process, led by the Ministry of Economic Development, that produced the document "Sustainable Energy – Creating a Sustainable Energy System" released by the Government in October 2004. This was a useful exercise for placing climate change policies in a wider sustainable development context and assisted integration with related policy areas.

Greenhouse Gas Inventory and Net Position

28. Development of New Zealand's **national inventory system** including the **carbon monitoring/accounting system** has continued this year. Since New Zealand reported its first greenhouse gas inventory there have been ongoing programme of work of improvements to meet the increasingly comprehensive reporting requirements set by the UNFCCC, including for reporting under the Kyoto Protocol.

29. The 2003 **greenhouse gas inventory** (completed in April 2005) included the following improvements:
- Accuracy:
 - . The inventory included the effect of 28 recalculations (improvements in data, emission factors or methodology, all back-calculated to 1990) across all sectors of the inventory.
 - . The net effect of all the recalculations was to reduce the 1990 assigned amount by 100 Gigagrams CO₂ equivalent (0.2%) but also reduce the level of increase over 1990. This equates to an adjustment of 1.6Mt CO₂e.
 - Transparency: More comprehensive documentation was provided as part of New Zealand's submission this year to explain clearly the methodologies and approaches used to estimate emissions and removals.
 - Completeness: The 2003 inventory included a preliminary estimate for all of the land use categories under the new land use, land-use change and forestry (LULUCF) reporting guidance. Previous inventories had only been able to include planted forests.
30. The update of the projected balance of units during the Kyoto Protocol's first commitment period (CP1) (2008-2012) is based on the latest national inventory of greenhouse gas emissions and removals submitted to the United Nations Framework Convention on Climate Change on 15 April 2005.
31. Due to on-going concerns about the level of uncertainties in the basic assumptions, the projected emissions and removals via sinks have been revised as a result of a whole of Government working programme co-ordinated by MfE. Further work is required, but the group has begun to improve the accuracy of the projections, ensure consistent assumptions across sectors, quantify known risks and include improved scientific knowledge.

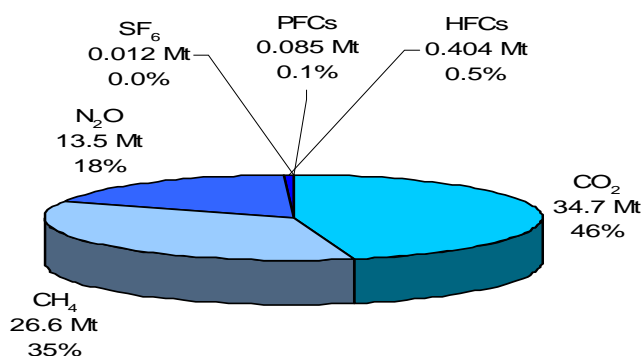
Overview of New Zealand's Greenhouse Gas Sources and Movements

32. New Zealand's total greenhouse gas emissions in 2003 equalled 75.3 million tonnes of CO₂ equivalent (Mt CO₂e) and were 22.5% above the 1990 level. Total emissions rose 2.9% from 2002. The agriculture sector produced 37.2 Mt CO₂e or 49.4% of total emissions in 2003. Emissions in this sector are now 15.6% or 5 Mt CO₂e over the level in 1990. The energy sector produced 32.3 Mt CO₂e or 42.9% of total emissions in 2003. Emissions from the energy sector are now 37.0% or 8.7 Mt CO₂e above the 1990 level.
33. An overview of the significant categories in the 2003 greenhouse gas emissions profile is as follows:

| | Total emissions (Mt CO ₂ equivalent) | Percentages |
|--|--|---------------------|
| Agricultural sector emissions | 37.2 | 49% of total |
| Agricultural soil emissions (N ₂ O) | 13.0 | 35% of sector |
| Sheep (CH ₄ from enteric fermentation) | 8.8 | 24% of sector |
| Dairy cattle (CH ₄ from enteric fermentation) | 8.6 | 23% of sector |
| Beef cattle (CH ₄ from enteric fermentation) | 5.3 | 14% of sector |
| Other | 1.5 | 4% of sector |
| Energy sector emissions | 32.3 | 43% of total |

| | | |
|---|-------------|--------------------|
| Transport | 14.0 | 43% of sector |
| Thermal electricity generation | 6.4 | 20% of sector |
| Manufacturing industries and construction | 5.9 | 18% of sector |
| Other | 6.0 | 19% of sector |
| Waste sector emissions | 1.8 | 3% of total |
| Industrial processes & solvent emissions | 4.0 | 5% of total |
| Total Emissions | 75.3 | 100% |

34. In 2003, New Zealand's greenhouse gases comprised 46 % carbon dioxide, 35% methane and 18% nitrous oxide (refer pie chart below). The sources of those greenhouse gases were primarily from the agricultural sector (methane and nitrous oxide) and the energy sector (mainly CO₂). Emissions of synthetic greenhouse gases (HFCs, PFCs and SF₆) together are less than 1% of the total.



35. The greenhouse gas inventory also tracks emissions and removals from the Land Use, Land-use Change and Forestry (LULUCF). In 2003 New Zealand's planted forest sinks were responsible for net removals of 23.9 Mt CO₂. This figure includes both pre- and post-1990 planted forests. It is only the post-1990 forests that enter the accounting for New Zealand's projected net emissions in the Kyoto Protocol commitment period (2008 to 2012). This is discussed in the next section.

Change in New Zealand's Projected Balance of Units over the first commitment period of the Kyoto Protocol

36. I have requested officials to organise an independent peer review of the methodologies used to calculate the projected balance of units. This will provide guidance on the confidence we can place in the figures and will help to ensure that robust projections are provided in future years.
37. The most recent "most likely" estimate of average annual emissions, including all associated policy effects, during 2008-2012 (CP1) is 80.9 Mt CO₂e per annum (note the 2003 inventory reported 75.3 Mt CO₂e). This represents a net deficit of 36.2 Mt CO₂e over the five year period.

38. This updated forecast shows a substantial turnaround from the projections calculated in 2003 (surplus of 55 Mt CO₂e) and 2004 (surplus of 32.6 Mt CO₂e). The decrease from previous projections is due primarily to an increase in projected emissions from the energy and industrial processes sector and a decrease in the removals via forest sinks. The decrease in removals is due to the quantification of previously unknown risks concerning scrubland and updating of previous estimates with improved scientific information.
39. For the energy and industrial processes emissions, the scenarios used are not an attempt to project what will actually happen in the sector; rather they provide an indication of a range of possible outcomes under a number of different assumptions (annex 2). While the uncertainties around the figures are high, the underlying trend for growth in emissions is clear.
40. The consequences of this change in the emissions outlook will be addressed in detail in a Cabinet paper by 31 October 2005. However, there is a clear need to consider all the options available to ensure that New Zealand can meet its Kyoto Protocol commitments.

Key climate change policy outcomes for FY 2004/2005

41. Officials continued to work throughout the period with potentially affected parties on the design of the **carbon tax** and its implementation. In April 2005 Cabinet approved the text of a consultation paper on implementing the carbon tax. This consultation paper was released on 4 May 2005 when the Government announced that the initial rate of the carbon tax will be \$15/tonne CO₂-e and that the tax will start on 1 April 2007, and confirmed that the revenue from the tax will be recycled through the tax system.
42. A **Negotiated Greenhouse Agreement** was completed with a second firm (OceanaGold); an eighth firm was found eligible to negotiate; four firms proceeded with negotiations; five applications remain under consideration; and indications of interest have been received from a further 14 firms and industry groups. The 14 applicants to date represent the core of New Zealand's large industrial energy users facing international competition.
43. Based on this experience, officials completed a report to Cabinet in April 2005 on a "Review of Operation of Negotiated Greenhouse Agreement Policy" [CAB (05) 164)]. Officials recommended a series of policy improvements to streamline the NGA process, reduce the cost to both the Government and applicants, and achieve the completion of the majority of NGAs before the carbon tax takes effect. Cabinet approved these policy improvements on 18 April 2005 [CAB Min (05) 14/10]. Officials have initiated a NGA acceleration programme to implement the changes and anticipate receiving a significant number of new applications.
44. The **Projects to Reduce Emissions** programme, over the course of two annual tender rounds and early project activities, has resulted in the award of emission units to facilitate:
 - The commissioning of Meridian Energy Ltd's Te Apiti wind farm, and extensions to TrustPower Ltd's Tararua wind farm and Genesis Energy's Hau Nui wind farm, all of which are now generating renewable energy;

- The development of ten other wind farms, two co-generation projects, six bio-energy projects, five landfill gas projects, and twelve small hydro/hydro expansion projects;
 - The forward sale of emission reduction units (ERUs) and verified emission reductions (VERs) to offshore buyers.
45. Regarding engagement in the international carbon market and the **Kyoto Flexibility Mechanisms**, emissions trading efforts over the past year have focused on assisting participants in the Projects to Reduce Emissions mechanism to access the carbon market through the vehicle of Joint Implementation projects. New Zealand has also begun a more thorough investigation of the potential for uptake of the Clean Development Mechanism (CDM). From a business opportunity standpoint, project developers and technology providers could also profit from involvement in the CDM.
 46. Following confirmation of international requirements for the development of emission unit registries in December 2004, officials commenced work on implementation of **New Zealand's registry** IT system.
 47. To strengthen the October 2002 climate change policy package, Ministers agreed policy in August 2004 to encourage **small to medium sized enterprises (SMEs)** to improve energy efficiency and reduce greenhouse gas emissions.
 48. The measures for SMEs concentrate on information and education. However, a minority of larger SMEs may be adversely affected by a carbon tax because they spend a significant proportion of their operating costs on energy; cannot easily pass on cost increases; face limited options for improved energy efficiency; and cannot easily fund major capital investment required to take up these options. Hence, in March 2005 Cabinet confirmed additional policy (POL Min (05) 6/6 refers) to assist these **energy-intensive businesses (EIBs)** to reduce greenhouse gas emissions, and to mitigate the possible adverse effects on them of a carbon tax through improved energy efficiency.
 49. The policy will be implemented through four measures: grants to assist capital investment in energy efficient technology, demonstrations to showcase energy efficient technologies, training to encourage company directors to give a higher priority to energy efficiency in corporate decisions, and education for managers and staff about energy efficiency.
 50. Nine industries have been identified as being energy intensive. EECA and the CCO, in consultation with industry associations, have selected technologies that are capable of delivering significant energy savings and have the potential to be widely used in these industries. Firms that are willing and able to host projects in some or all of these industries will be selected to demonstrate the application of these technologies.
 51. A pilot scheme will be established on 1 July 2005 to test the effectiveness of a grant scheme and demonstration projects, and to provide information that could support establishment of a fully fledged scheme. Training and education programmes will begin in 2006.
 52. The **Local Government work programme** is now underway and progressing well:

- The ‘*Communities for Climate Protection*’ programme was launched on 28 July 2004. It provides a framework via which councils can take action to reduce their corporate emissions and those within their community. 15 councils have now joined the programme, with 45% of the NZ population covered by participating councils.
 - The ‘**adaptation**’ programme continues to produce and disseminate a range of information materials on; the impacts of climate change; guidance as to how councils can prepare for these effects; and a series of checklists and other decision-making tools to help councils integrate consideration of climate change into regular processes and planning cycles.
 - The **Local Government New Zealand** partnership was launched in April 2004. It continues to assist the Government to communicate and consult with councils on climate change matters.
 - Information has also been prepared for local government on the **Resource Management (Energy and Climate Change) Amendment Act 2004**.
53. A national environmental standard that defines, at a national level, the **methane control requirements from landfills** has been operational since October 2004;
54. Under the **Agricultural Research Memorandum of Understanding** the agriculture industry continues to implement its research strategy for mitigating methane and nitrous oxide gases. The Pastoral Greenhouse Gas Research Consortium will shortly undertake a strategic review of its current funding and programme priorities and report its findings as part of its Annual Report to the Crown.
55. The **Forest Industry Development Agenda (FIDA)** was announced on 5 April 2005. The FIDA is a separate agreement from the proposed Forest Industry Framework Agreement (FIFA). Last year it became clear the industry as a whole had difficulty in accepting FIFA, because of issues around deforestation and carbon credits. The FIDA includes the majority of the development initiatives included in the proposed FIFA agreement, but excludes the direct climate change elements. The FIDA funding package is worth approximately \$18 million over five years, to be used for market access, market development, bio-energy, skills and training, and wood design. Market access, market development and wood design funding is dependent on securing industry co-funding. The CCO and MAF will work with EECA and the forest industry in administering the bioenergy work programme.
56. The **Climate Change Response Amendment Bill (CCRAB)** was introduced into Parliament in May 2005. It provides for entities other than the Crown (i.e. businesses and individuals) to hold accounts in New Zealand’s emission unit registry and to trade in emission units. It also provides for the accounting of two new types of emission units created by international decisions in 2003: temporary certified emission reduction units and long-term certified emission reduction units (from forest sink projects under the Kyoto Protocol’s Clean Development Mechanism). Part two of the Bill will extend the regulation making powers of the Forests Act 1949 to enable the establishment of the **Permanent Forest Sinks Initiative**.
57. The **Permanent Forest Sinks Initiative (PFSI)** provides an opportunity for landowners to establish permanent forests and gain fully tradable Kyoto Protocol compliant emission units (POL Min (03) 10/6 refers). The Indigenous

Forestry Unit of the Ministry of Agriculture and Forestry will administer the scheme, and will continue to work with stakeholders and CCO in the development of the scheme.

58. Domestic climate change policy settings and other economic factors can influence both **future forest plantings and land-use change** decisions. These decisions will determine the benefits New Zealand will gain from sinks or could lose if our forests become a net greenhouse gas source. Current work programmes are investigating:
- the sufficiency of current domestic policy work, especially with regard to the encouragement of the creation of new sinks (e.g. forest planting);
 - how land-use change associated with securing forest sinks and protecting our terrestrial carbon pools can complement other issues of major importance to the Government e.g. water quality and quantity in lakes, rivers and groundwater, land erosion, flood protection, biodiversity and the sustainable development plan of action;
 - deforestation trends (monitoring this will be possible once the carbon accounting system is fully operational);
 - possible future international regime scenarios for sinks and their implications for New Zealand; and,
 - options for New Zealand to influence the international policy debate on sinks.
59. The use and emissions of sulphur hexafluoride (SF₆) are very small. These emissions are being addressed through a **Memorandum of Understanding relating to the management of emissions of SF₆ to the atmosphere**, signed by the Government and the major users in the electricity distribution industry.
60. The **transport** work programme is lead by the Ministry of Transport, with the Ministry of Economic Development and EECA having roles in regard to fuel quality, energy efficiency and renewable fuels.
61. An important development has been the release in March 2005 of the **Surface Transport Costs and Charges Study**. This study addressed the question "What are the costs of land transport and who is paying them?" It provides data on the economic, social and environmental costs (including from emission of greenhouse gases) that result from land transport. The study considers whether these costs are being met by the users of the system. This information will support ongoing work on the relative position of road and rail for freight transport and of rail, bus and private car for passenger transport.
62. Work on **biofuels** is continuing, including discussion with industry representatives on the appropriateness of mandatory targets, fuel standards and vehicle compatibility. Provision of **fuel consumption information** for vehicle purchasers can now proceed as work has established easy to understand, comparable fuel data for New Zealand's varied fleet. A related work programme, focused on reducing toxic vehicle emissions, will help reduce fuel consumption through highlighting the importance of vehicle maintenance.
63. The joint New Zealand/Australia Climate Change and Business Conference held in Auckland on 4-5 November 2004 highlighted a range of **business opportunities** emerging from the rapidly developing carbon economy. These include new technologies for emissions reduction and energy efficiency, and

ancillary services such as banking, brokerage and insurance in emissions trading markets.

64. The Climate Change Policy package and other government policies and strategies provide the foundation for development of a climate change industry; but there are some gaps that create barriers to industry development. In December 2004, Ministers agreed that these gaps can be filled through further measures to **promote export market development, foster business innovation, and encourage greater industry cooperation.**
65. Four projects, led by CCO, are being implemented to **facilitate access to government-held information**, provide information about **business opportunities in the international carbon economy**, identify ways to encourage and support **climate change innovation and technology development**, and facilitate **access of climate-friendly technologies to global markets.**
66. Phase 2 of the *4 Million Careful Owners Public Awareness and Education Campaign* was undertaken from August 2004 to February 2005. The campaign aims to build awareness of the effects of climate change and what New Zealanders can practically do to reduce greenhouse gas emissions. It built on the success of Phase One of the campaign (03/04) and expanded the media and advertising component to include stakeholder and event management to raise public awareness, and the formation of an industry reference group to represent private, public and local government sector interests and to encourage leadership in climate change action. Market research undertaken near the end of the campaign showed that 74 per cent of those New Zealanders surveyed were either concerned or very concerned about Climate Change. 56 per cent said that they would think, would or had already begun taking actions to help reduce the effects of climate change¹. Phase 3 of the campaign is planned to begin in October 2005.
67. The focus of our **international engagement** over the last year has been to work within the UNFCCC process to help ensure that everything is in place for an operational Kyoto Protocol. This has included the adoption of the reporting rules and guidelines for Kyoto Forests. We have also continued to monitor and be engaged in fora that are exploring options with regard to future climate change commitments beyond the first commitment period of the Kyoto Protocol. The **bilateral climate change partnerships** with the United States and Australia have been ongoing.
68. Regarding the **Intergovernmental Panel on Climate Change (IPCC)**, CCO is co-funding the participation of New Zealand scientists in the writing and review of the IPCC 4th Assessment Report, a comprehensive summary of climate change science, impacts and adaptation, and mitigation options, due for completion in 2007. New Zealand has continued to promote the **Global Climate Observing System (GCOS)**. This is an important ingredient in building capacity to deal with climate change effects in developing countries. Officials and scientists participated in two governance meetings of the **Global Earth Observing System of Systems (GEOSS)**, a pluri-lateral initiative which

¹ 76

amongst other things will supply crucial satellite information on land-use changes for New Zealand.

69. **Other science activities** include CCO's first **annual survey of climate change research investment in New Zealand**, which provides baseline information to monitor research trends and inform future decisions on science funding priorities.

Consultation

70. The Treasury, the Ministry of Economic Development, the Ministry of Agriculture and Forestry, the Ministry of Foreign Affairs and Trade, the Department of Prime Minister and Cabinet, the Ministry of Transport, the Energy Efficiency and Conservation Authority, Te Puni Kokiri and the Ministry of Research, Science and Technology have been consulted in the preparation of this paper.

Financial implications

71. Under the Kyoto Protocol, New Zealand is committed to take responsibility for any greenhouse gas emissions over and above its target of 1990 emissions. There are clear financial implications/contingent liabilities for the Crown if emissions units need to be purchased via the Kyoto Protocol's flexibility mechanisms.
72. As already stated in POL (05) 38, it is expected that careful management will be required to prioritise and deliver on the substantial policy and reporting tasks ahead. If further policy and inventory developments are necessary to meet New Zealand's Kyoto Protocol commitments, as seems likely, the budget for climate change activities will need to be reviewed. This will be assessed before the Budget 2006/07.

Legislative implications

73. None.

Publicity

74. It is proposed that a press release will be made on progress with policy implementation, the latest inventory update and the update of New Zealand's net position. Due to the importance of transparency, it is also recommended that this report be made publicly available on the CCO website.
75. It should however be noted that publication of this information will highlight the change in New Zealand's net position from a healthy surplus to a significant deficit. The fact that the policies have not yet had a profound impact on emissions is not unexpected, but this report may raise questions about the effectiveness of the approach taken to date. The high level of uncertainty with regard to the forecasts may also raise questions about the level of confidence in the trends.

Recommendations

76. It is recommended that Cabinet:

1. **Note** the contents of this paper.
2. **Note** the change to the projected surplus of units to a deficit for the period 2008 to 2012 arising from an increase in projected emissions from the energy (including transport fuel) and industrial processes sector and a decrease in removals via forest sinks.
3. **Note** that the most likely estimate for emissions in the first commitment period (2008 - 2012), based on current information and modelling methodologies, indicates a net deficit in the region of 36 million tonnes of carbon dioxide equivalent.
4. **Note** that the Ministry for the Environment will commission a peer review of the estimates with urgency.
5. **Note** that an in-depth review of current policy objectives and settings will be conducted by officials, and reported back to Cabinet by 31 October 2005
6. **Agree** that this report be made publicly available on the Climate Change Office website.

Hon Pete Hodgson
Convenor, Ministerial Group on Climate Change