

### 3 CLIMATE CHANGE: INTRODUCTION

The New Zealand Government is committed to being an international leader in climate change. New Zealand's greenhouse gas emissions profile is different to many other developed countries. Almost 50% of NZ's emissions are methane from farm animals and nitrous oxide from soils and fertilizers. This is in contrast to other developed countries where on average 12% of emissions are from agriculture.

Approximately 43% of NZ emissions are from energy production and use (including transport). This reflects to a large extent the fact that NZ emissions from electricity production are low with renewable sources (mainly hydro) contributing almost 70% of electricity supply. Growing demand for electricity and the vulnerability of hydro-generation to dry years has led, however, to a greater reliance on gas, coal and oil in recent years.

Approximately 8% of NZ emissions come from industrial processes.

NZ's total emissions have increased 21.6% from 1990-2002.

NZ ratified the Kyoto Protocol on 19 December 2002 after the passage of the Climate Change Response Act 2002, which provided the legal framework for NZ ratification. In the same year, after extensive public consultation, the Government adopted its policy on climate change.

The policy's overall goal is that:

*"NZ should have made significant reductions in greenhouse gas emissions on 'business as usual' and be set towards a permanent downward path for total gross emissions by 2012."*

The policy also contained a quantitative target of reducing annual greenhouse gas emissions to 1990 levels over the first commitment period (2008-2012), or taking responsibility for any excess by buying emission units or offsetting with forestry sink credits.

#### 3.1 Addressing inter-linkages between climate change and sustainable development

##### **Addressing relationships between energy consumption, efficiency, conservation and climate change**

Refer to section 2.2

The National Energy Efficiency and Conservation Strategy includes two high level national targets:

- a 20% improvement in economy-wide energy efficiency by 2012

- increased renewable energy supply to provide a further 30 petajoules of consumer energy in 2012.

Mechanisms to achieve these targets include:

- for businesses: provision of grants for energy audits, loans to implement energy savings and raising awareness of the opportunities to improve profitability through good energy management;
- for buildings: changes to the building code to improve the energy efficiency of residential and commercial buildings;
- for households: EnergyWise grants to install insulation and other energy efficient measures into existing homes;
- renewable energy to the grid: providing information, advise and support to renewable energy projects;
- market development of renewable energy: encouraging the uptake of small-scale renewable energy technology (e.g. solar water heating systems) through mechanisms such as interest free loans.;
- demand response: investigation and facilitation of demand response in the electricity market; and
- promotion of energy efficiency of products through the use of minimum energy performance standards and labelling;

### **Addressing relationships between industry and climate change**

Refer to section 2.2

NZ policies include:

- Assisting energy-intensive small and medium enterprises to reduce greenhouse gas emissions through improved energy efficiency.
- Projects to reduce emissions' which provide incentives for projects that reduce emissions below business as usual during the first commitment period of the Kyoto Protocol.

### **Combating climate change through national sustainable development strategies**

NZ has a number of key policies that address climate change. These include the:

- Sustainable Development Programme of Action, which is based on four initial action areas, one of which is sustainable energy.
- National Energy Efficiency and Conservation Strategy
- National Transport Strategy which aims to ensure environmental sustainability among its goals and includes programmes on vehicle fuel efficiency and travel demand management which will address carbon dioxide emissions.
- National Rail Strategy that will reduce emissions of carbon dioxide and nitrous oxide.
- Pastoral agriculture research: a voluntary partnership between government and the agricultural sector to address safe, cost-effective greenhouse gas abatement technologies which will lower New Zealand's agricultural emissions of methane and nitrous oxide.
- National Waste Minimisation and Management Strategy and National Environmental Standard for landfill methane that aim to lower methane emissions associated with waste.

### **3.2 Progress on New Zealand Commitments**

#### **UNFCCC commitments**

##### Voluntary Climate Change Commitment

Developing countries are projected to contribute more than 50% of global greenhouse gas emissions by 2030. The challenge of de-coupling economic growth from proportionate increases in emissions is huge and will need substantial inputs of "clean" technology, expertise and investment. Assistance in adapting to the adverse effects of climate change will also be required. Against this background, at the second session of the 6<sup>th</sup> Conference of Parties to the UN Framework Convention on Climate Change (UNFCCC) in 2001, New Zealand joined the EU, Canada, Norway, Switzerland and Iceland in making a total voluntary commitment of US\$410 million to assist developing countries meet the challenges of climate change. New Zealand's share of this commitment is NZ\$5 million per annum reaching this level in 2005/06 (a review of the level of commitment is scheduled for 2008).

New Zealand has a preference for its voluntary commitment to assist Pacific Island countries.

In 2005/6 New Zealand's voluntary commitment will be made up of contributions to the Global Environment Facility (GEF) of NZ\$1.3 million, NZAID's Pacific Regional Environmental Programme of NZ\$1.5 million, the Ministry for the Environment's Climate Change Development Fund of NZ\$300,000, the UNFCCC's Least Developed Countries Fund of NZ\$1.8 million and the Trust Fund for Participation in the UNFCCC Process of NZ\$100,000.

With the adoption of the Pacific Island Framework for Action on Climate Change 2006-2015 last year New Zealand anticipates a greater portion of its voluntary commitment will be directed to the Pacific through NZAID's Pacific Regional Environmental Programme in future years.

#### **NZAID's Voluntary Commitment expenditure 2004/05**

	<b>2004/05 (actual)</b>
<b>NZAID (\$1.5m allocation)</b>	
Pacific COP10 preparatory workshop	\$78,038
SPREP Adaptation Officer	\$24,118
SPREP Pacific Climate Framework Roundtable	\$190,188
LEG work programme	\$200,000
UNFCCC LDC workshop	\$51,294
Workshop on Pacific Regional Action Plan for Disaster Risk Reduction	\$6,917
Workshop on natural disaster risk management for Pacific power utilities	\$44,000
Vietnam Extreme Weather Preparedness	\$381,563
Community based hybrid diesel-wind generation in the Philippines	\$168,948
Nuiafo'ou Solar electrification project	\$40,000
Mekong River Commission Gender mainstreaming	\$91,000
Camiguin coastal resources programme, Phillipines	\$50,000
<b>NZAID subtotal</b>	<b>NZ\$1,326,067</b>

#### **WSSD commitments**

##### Type II Partnerships - Managing vulnerability and building resilience to natural disasters

We are not aware that this partnership is currently operating as such. In 2004 NZAID supported SOPAC to work with Pacific Countries to develop an environmental vulnerability index (NZ \$266,000).

##### Type II Partnership - Pacific adaptation Initiative (relating to climate change and global warming)

Forum leaders agreed last year on the *Pacific Island Framework for Action on Climate Change 2006-2015*, which has adaptation as one of six goals. SPREP coordinated the development of the Framework and with NZAID support (US\$52,000) is now working on an action plan to underpin it. NZAID will consider support to a regional Type II on climate change (including adaptation) should that follow the current work on the action plan.

#### **US - New Zealand Climate Change Partnership**

The US - New Zealand Climate Change Partnership was launched in 2002. Its purpose is to enhance and accelerate collaboration and practical cooperation on climate change issues.

The Partnership focuses on nine priority areas: climate change science and monitoring; technology development; emission unit registries; greenhouse gas accounting in forestry and agriculture; engaging with business; developing country assistance; climate change research in Antarctica; public education initiatives; and development of joint product and process standards.

The first round of 26 projects was launched in 2003 following a US delegation visit to Wellington. A second round of six new projects was agreed in 2004 on a return visit to Washington by a New Zealand delegation.

Three new projects were announced under the Partnership after a US delegation visited New Zealand in July 2005. The new projects focus on the exchange of scientific data, information and tools that can assist decision-making and enable the efficient management of ecosystems in the context of climate variability and change. The projects encompass:

- Collaboration on the Pacific Biodiversity Information Forum
- Integrating data systems and sharing biodiversity expertise in the development of regional Ocean Biogeographic Information Systems
- Joint work on databases and information on invasive species and their management.

Two existing projects were completed.

#### **Australia – New Zealand Climate Change Partnership**

Hon. Pete Hodgson and the Hon. Dr. David Kemp (former Australian Minister for Environment and Heritage) launched the Australia-New Zealand Climate Change Partnership via a joint press statement in Melbourne, on 7 July 2003.

Joint ministers announced the first projects under the Partnership in December 2003 during the 9<sup>th</sup> Conference of the Parties to the UN Framework Convention on Climate Change.

Since then a number of other projects have been added to the Partnership, including the side event at COP 10 in December 2004 on the Global Climate Observing System (GCOS) in the Pacific (which was a trilateral activity also involving the United States), and the very successful Pew Regional Dialogue in April this year. The most recent addition to the Partnership projects was the October 2005 workshop in Rotorua on LULUCF.

The proposed new joint Bureau of Meteorology/NIWA project on climate data rescue in the Pacific is similar to a proposal that was previously submitted in 2004 but was not funded due to competing priorities. The proposed project will undertake efforts in five Pacific Island countries to develop an inventory of digitised and un-digitised climate records, to recommend action for the preservation of the records, and where appropriate, to enact immediate action to secure important paper climate records at risk of loss.

This new project is designed to complement an existing NZ-US project, focused on digitising historical manuscript records that are held in New Zealand on behalf of PICs, and will focus on climate data in the Solomon Islands, Kiribati, Vanuatu, Papua New Guinea and Fiji.