

# Opening Address: “The regulatory process and linkages between the Montreal Protocol and the Kyoto Protocol, ozone, UV and Climate”

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## Introduction

Hi everyone. My name is Maryanne Macleod and I am the General Manager of the Reporting and Review Group within the Ministry for the Environment. I must start by saying that it is very daunting for a bureaucrat, and very lapsed scientist, to be standing up in front of so many eminent scientists to give the opening address.

A major focus of my work is environmental information, I live in the murky world where science meets policy. As such one of the key challenges of my role is to make the scientific information real for people so they can make the decisions that they need to.

I am currently immersed in the issue of climate change and from my frame of reference, there is much to be learnt from the success that has been had to date in dealing with the hole in the ozone layer.

I would like to make some observations about what we hope will become a parallel story: the story of climate change and national and international action to address it.

## Global thinking has changed to accept climate change is happening

The Ozone hole is real for people, it is something that people understand. They also understand the need to take action in New Zealand, and they support international action. Climate change has some way to go to get to that point.

Climate change, just like ozone depletion, had its sceptics. People said “it’s not happening”. When it became undeniable, they said “it’s natural”. When it became clear that human activities were the cause, they said “it’s too expensive”.

Although this progression could be frustrating for those working in the field, we are seeing real progress. A few years ago, the main thing that newspapers wrote about climate change was stories about some so-called expert who said that it wasn’t real.

We are past this point now. I had the pleasure of attending much of the Climate Change and Governance Conference that was held in Wellington last month. The messages from that conference were unanimous and clear. The climate is changing and even if emissions were reduced to zero tomorrow, the climate would continue to change for hundreds of years. The questions now rest around:

- how much,
- how fast,
- how do we reduce the impacts,
- what are the tipping points,
- how climate change affects the world,
- and what technologies are there to help us.

There are very few people who think that climate change isn’t happening, or that it is not caused by anthropogenic emissions.

Those are some of the science debates. The hurdle in front of policy people like me are focused on how to make progress in reducing emissions, how do we manage the impacts and most importantly how do we get a lasting national and international policy and action. Without a stable science position it is pretty much impossible to get agreement. Side tracking or waiting becomes too easy.

## Is climate change real for people?

UV radiation and ozone depletion brought home the notion that New Zealand is vulnerable to global changes, and that global changes can have a very direct and immediate impact on our lives and our families. This allowed for action. We don’t have that level of understanding for climate change yet.

Just as the ozone hole above Antarctica had an unpleasant geographic proximity to New Zealand, our neighbours the Southern Ocean and Antarctica are vital barometers of global climate change. Unexpected shifts there could have major effects specifically on New Zealand. However this is not widely understood.

And as with ozone depletion, the emissions that cause climate change are mainly caused by industrialised nations, but the biggest impact of those emissions is not necessarily felt where the emissions occur.

Climate change makes the world even more closely interconnected than it already is, because, as a nation dependent on international trade, the impacts of climate change happening overseas may well prove to be equally as important as the impacts happening at home.

These factors mean that while ozone depletion can be seen to have an immediate impact on our lives – climate change seems rather remote. This remoteness presents a particular challenge to us and to those of you who work with communities, with public understanding and community-based action. At the policy level we need to work with scientists to make climate change real.

## How to respond?

I now want to talk about two of the global mechanisms designed to help reduce harmful emissions: the Montreal Protocol and the Kyoto Protocol.

## The Montreal Protocol

The Montreal Protocol has been heralded as a success story. Under the Protocol, the primary ozone depleting substances such as chlorofluorocarbons (CFCs), were phased-out in developed countries by early 1996.

Developing countries, meanwhile, are to phase out CFCs by 2010.

New Zealand has implemented Montreal Protocol by passing the Ozone Layer Protection Act and regulations to ban and phase out ozone depleting substances.

For example, the import of Methyl Bromide or Hydrochlorofluorocarbons (HCFCs), requires a permit issued by Ministry of Economic Development. HCFCs will be completely phased out by 2015. Although importing Methyl Bromide was prohibited as of January last year, New Zealand has a Critical-Use Exemption to import methyl bromide for a limited time beyond this date for the strawberry industry only, where it is used as a fumigant to control pests.

Other substances that can't be imported at all as they have been phased out include CFCs, Halons, Carbon Tetrachloride, Methyl Chloroform and Hydrobromofluorocarbons (HBFCs). This means that some products like certain aerosols, fire extinguishers, any products that contain any CFCs such as dehumidifiers etc are prohibited because they contain or use these substances.

NZ decided early on that it was in its own best interests to support the Montreal Protocol for the reduction of CFCs, even though its own emissions of CFCs were minute compared to those by much larger nations of the northern hemisphere. The very same notion applies to our efforts and our responsibility to reduce greenhouse gas emissions; even though our greenhouse gas emissions are very small on the global scale (approximately 0.2% of global emissions). It is in our own self interest to foster and be part of an effective international response to climate change.

## **Kyoto Protocol**

Moving ahead 10 years, we arrive at the Kyoto Protocol, which was signed by 160 governments, including New Zealand, in 1997. It aims to reduce the emission of greenhouse gases. Its implementation, however, is dependent on specific agreements to be made on targets and timetables for greenhouse gas emissions reduction.

## **Linkages between Montreal & Kyoto**

It is generally appreciated that the Vienna Convention for the Protection of the Ozone Layer of 1985 and its Montreal Protocol of 1987 have been a great source of inspiration throughout the negotiations on the United Nations Framework Convention on Climate Change (UNFCCC) of 1992 and its Kyoto Protocol of 1997.

There are a number of positive lessons that we can learn from Montreal Protocol.

**Firstly**, scientists played a crucial role not only in theorizing and uncovering the threats to the ozone layer from Ozone Depleting Substances, but also in diplomatic efforts between themselves and policy makers. They collaborated to describe the ozone problem, identify non-ozone depleting alternatives, develop models of the mechanisms involved, and make projections. In the climate change world the IPCC have a key role in bringing

scientists together to debate and agree on the current state of play.

**Secondly**, it is clear that there is a necessity for strong leadership. Without the strong leadership of United Nations Environment Programme, the Montreal Protocol would not have become a reality.

**Thirdly**, the Montreal Protocol had a flexible design which allowed for revisions. It was designed so that independent expert panels could be commissioned to periodically reassess scientific, economic and technological aspects relating to the Montreal Protocol, and to anticipate and examine new problems as they arose.

**Fourthly**, public and private sector partnerships provided the technological breakthroughs needed to identify CFC replacements. Something that I believe will be vital if we are to find the technological solutions we seek for climate change.

**Another** successful factor was involving developing countries in the solution. Industrialized nations realised from the start that they would have to take earlier and stronger measures than the developing nations. And because developed countries followed through on their commitments, developing countries also moved quickly to replace CFCs. Although naturally this is a real challenge and would need to be done at a pace that reflects their capacity to do so.

While there is a lot that has been learnt through the Montreal Protocol, there are a few key challenges associated with the Kyoto Protocol.

While the IPCC is making good progress by working towards achieving international consensus on key issues relating to climate change, scientific knowledge relating to climate change still involves a number of uncertainties. For example, just how high will the sea levels and temperature rise?

The Kyoto Protocol was really designed to begin a process. However, it is basically a short-term approach to deal with a long-term problem.

We need to keep the issue of climate change on the agenda not just on Kyoto obligations. By comparison – people talk about the ozone hole or UV rather than the Montreal Protocol.

One of the more significant challenges is the lack of immediate visibility of the threat of climate change in our society. This is the challenge of making the information real for people that I mentioned in my opening.

Agreement on the Montreal Protocol was no doubt facilitated by the issue of human skin cancer. Because the consequences of ozone depletion were tangible for the individual, the pressure of public opinion didn't allow governments to be inactive. With climate change however, we are not yet at that point.

Of course technology has been a big player in the ozone depletion success story. The solution to the ozone involved eliminating emissions of ozone depleting substances. With climate change, we are possibly looking at fundamental changes to how we use resources. Although the science is not exact yet – the general consensus is that if we are to keep temperature increases to less than two degrees, we need to be achieving a reduction to 40% of 1990 emissions by the end of this century. The question for us is: how do we really move to a world that doesn't

rely on fossil fuels, how in New Zealand do we reduce our methane emissions?

### **What is NZ doing about climate change?**

So what is NZ doing about climate change?

In 2002 the government signalled a review of climate change policy would be undertaken in 2005. This review was commissioned last year: it coincided with the revelation that we will not be, as had previously been indicated, in a net credit but in a net debit situation under the Kyoto protocol's first commitment period.

Officials from a number of government departments, including Environment, Treasury, Transport, Agriculture and Forestry and Economic Development took a long hard look at our options, and presented a series of options to Government.

Just before Christmas the government decided not to progress with the Carbon Tax as originally intended. Instead, officials have been asked to come back to government with a well-planned and coordinated work programme that looks at all the options at our disposal to tackle climate change in the long term. The policy has to strike a balance between providing a degree of certainty for business, while also remaining flexible in the face of changing international negotiations and changing domestic circumstances.

We also have to ensure we have policies that will provide effective tools to address our emissions into the future, and that do not need revisions every few years. In a lesson learnt from the ozone hole issue, we need to work out how to make the issue and the options understandable and real for people so that they provide the mandate for change.

### **Conclusion**

I was asked to reflect on the similarities between the ozone hole issue and climate change. That and as a consequence of where my work is at now, much of this talk has therefore been about climate change. Let me finish by saying that I have had the sad misfortune to lose two friends to skin cancer, Grant was only 27 and more recently Alice, a work colleague aged just 32. What you are doing is, and continues to be incredibly important.

I understand that we can say with some confidence that even though we have not been able to close the ozone hole yet, we have effective and adequate systems in place that will, bar any surprises, eventually lead to a full recovery of the ozone layer. I have no doubt that those tackling the climate change issue will continue to watch and learn from the processes, science and people like yourselves that have already managed to change the world for the better.

I wish you all the best for the rest of the conference. Thank you very much