



NZCCRI Seminar Series



Speaker: Professor Denise L. Mauzerall

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A post-Kyoto partner: Considering the stratospheric ozone regime as a tool to manage nitrous oxide

Nitrous oxide (N₂O) is the largest known remaining anthropogenic threat to the stratospheric ozone layer. However, it is currently only regulated under the 1997 Kyoto Protocol due to its simultaneous ability to warm the climate. The threat N₂O poses to the stratospheric ozone layer, coupled with the uncertain future of the international climate regime, motivates our exploration of issues that could be relevant to the Parties to the ozone regime (the 1985 Vienna Convention and its 1987 Montreal Protocol) should they decide to take measures to manage N₂O in the future. There are clear legal avenues for the ozone regime to regulate N₂O, as well as several ways to share authority with the existing and future international climate treaties. N₂O mitigation strategies exist to address its most significant anthropogenic sources, including agriculture, where behavioural practices and new technologies could contribute significantly to reducing emissions. Existing policies managing N₂O and other forms of reactive nitrogen could be harnessed and built upon by the ozone regime's existing bodies to implement N₂O controls. The possible inclusion of N₂O in the ozone regime need not be viewed as a sign of the UNFCCC's failure to adequately deal with climate change. Rather, it could represent an additional valuable tool in sustainable development diplomacy.

Date: Monday 17th December 2012

Time: 10am

Venue: GB117 Government Building (Law Faculty), Lambton Quay

Professor Mauzerall: The objective of my research group at Princeton is to utilize science to inform the development of far-sighted air quality policy that considers impacts of air pollution on human health, agriculture and climate change. Our approach is to use rigorous scientific tools to address technical questions of direct policy relevance. Research in my group analyses the impacts of air pollution globally as well as in both the largest rapidly industrializing country (China) and in the largest developed country (US). Recent work has examined the effect of present and potential future concentrations of air pollutants, particularly black carbon and ozone, on public health, global agriculture and climate change and the potential benefits of various mitigation strategies. We have also investigated inter-state and inter-continental transport of air pollutants with an emphasis on transport from rapidly industrializing Asia to the rest of the world. These issues are interlinked, globally pervasive and addressing one provides opportunities for leveraging solutions to others. My goal is to use global change science to facilitate the formation of sound environmental policy.