

CASE STUDY OF A SUCCESSFUL AUSTRALIAN NATIONAL ATMOSPHERE/AIR POLLUTION PROGRAMME/STRATEGY

OZONE PROTECTION IN AUSTRALIA

1. The problem or issue addressed:

Ozone depletion and global warming

2. Name of the programme:

Ozone protection and synthetic greenhouse gas management program.

3. Timeframe: ___ years Year started: 1989

4. Status: Ongoing

5. Main objectives:

The main objectives of Australia's approach to managing the impact of ozone depleting substances and their synthetic greenhouse gas (SGG's) replacements are to:

- institute, for the purpose of giving effect to Australia's obligations under the Vienna Convention and the Montreal Protocol, a system of controls on the manufacture, import and export of substances that deplete ozone in the atmosphere;
- institute, and to provide for the institution of, specific controls on the manufacture, import, export, distribution and use of products that contain such substances or use such substances in their operation;
- use the best endeavours to encourage Australian industry to: replace ozone depleting substances; and achieve a faster and greater reduction in the levels of production and use of ozone depleting substances than are provided for in the Vienna Convention and the Montreal Protocol, to the extent that such replacements and achievements are reasonably possible within the limits imposed by the availability of suitable alternate substances, and appropriate technology and devices; and
- provide controls on the manufacture, import, export and use of SGGs, for the purposes of giving effect to Australia's obligations under the Framework Convention on Climate Change; and
- promote the responsible management of scheduled substances so as to minimise their impact on the atmosphere.

6. Lead institution:

The Australian Government Department of the Environment and Heritage.

7. Other implementation arrangements and stakeholders involved (public, private, NGOs, CBOs, international support, etc.):

Australia's national approach to manage ozone depleting substances and their synthetic greenhouse gas replacements has been developed in close consultation with industry and state governments. Industry sectors involved include bulk gas importers, equipment manufacturers, refrigeration and air conditioning, fire protection, fumigation, foam blowing, laboratory and analytical users, and solvents.

8. *The results achieved (if possible, please address the social, economic and environmental impacts of the programme):*

At a global level, the response to ozone depletion is a high water mark for international environment treaties. In 2003, NASA data showed that, for the first time, the rate of ozone depletion was slowing. A full recovery of the earth's ozone layer is expected by 2050.

Australia has met or exceeded all phaseout targets set through the Montreal Protocol. Australia's use of HCFCs will be 66% less than provided by under the Montreal Protocol through the phaseout period up to 2015. Australia operates an active program to destroy used or surplus ozone depleting substances and has destroyed more of these substances than any other country. Australia's new legislation controlling the use of synthetic greenhouse gases will lead to emission reductions of nearly six million tonnes of carbon dioxide, or one per cent of 1990 levels in 2010.

Approaches to achieving objectives and outcomes include:

- participation in international ozone protection forums – Australia's international commitments include contributing funding through AusAID to the Multilateral Fund. Set up under the Montreal Protocol in 1991, this fund supports the transfer of ozone-friendly technology to developing countries;
- bilateral phaseout projects with countries in the Asia-Pacific region – as part of its contribution to the Multilateral Fund, Australia manages bilateral projects to help neighbouring countries to phase out ozone depleting substances. These projects use and help to promote Australian skills and technology. Projects include establishment of a Halon Bank in India;
- national ozone protection measures, including the National Halon Bank – the bank collects halon from business and the community, reclaims sufficient quantities for Australia's strategic aviation and shipping needs and destroys surplus halon;
- accelerated the phaseout of hydrochlorofluorocarbons, producing a 66% reduction in imports in the period up to the full phaseout in 2020;
- operation of the Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 (the Act) – under the Act, regulations covering the sale, purchase, storage, use, handling and disposal of ozone depleting substances and their synthetic greenhouse gas replacements are being developed on a sector by sector basis:
 - regulations covering the use of the fumigant methyl bromide came into effect on 1 January 2005;
 - refrigeration and air conditioning sector regulations came into effect on 1 January 2005, and full effect on 1 July 2005;
 - fire protection industry regulations commenced on 1 May 2005;
 - regulations controlling other industry sectors, including foam, aerosols, air conditioning equipment, solvents and laboratory and analytical uses are being developed over time.

The Regulations will replace existing state and territory laws. The Regulations establish national standards, and will decrease emissions of ozone depleting substances and their synthetic greenhouse gas replacements by raising industry skills:

- the regulations restrict methyl bromide use to quarantine, feedstock and approved critical uses in Australia;
 - the refrigeration and air conditioning and fire protection industry regulations establish:
 - . a national licensing system for technicians that use ozone-depleting substances or synthetic greenhouse gases;
 - . an authorisation system for businesses to purchase ozone depleting substances and synthetic greenhouse gases.
- projects under the Climate Action Partnership with New Zealand and the United States focused on reducing emissions of synthetic greenhouse gases – under the Climate Action Partnerships, Australia is working with the industry and government in the United States and New Zealand to develop cooperative approaches to managing high global warming potential gases, in particular hydrofluorocarbons and sulphur hexafluoride. These projects include supporting research in the development of an energy efficient destruction process which produces a high value polymer end product, monitoring emissions from vehicles, supporting the research and development of new air conditioning systems and refrigerants for mobile air conditioning applications, and development of a code of best practice for handling refrigerants in refrigeration and air conditioning equipment.

9. The relationship of the programme to internationally agreed goals and targets:

The programme implements Australia's obligations under the *Montreal Protocol on Substances that Deplete the Ozone Layer* and certain reporting obligations under the *United Nations Framework Convention on Climate Change*.

Obligations to phase-out the production and consumption of ozone depleting substances under the Montreal Protocol are implemented through a licensing system for all imports, exports and manufacture of ozone depleting substances in Australia.

These licences are issued and administered under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* (the Act). Each licence sets a maximum amount of ozone depleting substance that may be imported, exported or manufactured.

For most ozone depleting substances, Australian consumption (defined under the Montreal Protocol as manufacture + imports – exports) has now been phased out. For hydrochlorofluorocarbons (HCFCs) total consumption is being phased out in accordance with the schedule specified in section 24 of the Act. Australia's total HCFC consumption levels are significantly below the amount permitted under the Montreal Protocol (Attachment A).

For methyl bromide, Australia is required to phase-out the consumption from 1 January 2005, except for any approved critical uses, feedstock uses or quarantine and pre-shipment applications. The import, export and manufacture of methyl bromide is also licensed under the Act. Ensuring that imports of methyl bromide are only used for approved purposes requires an extensive monitoring and reporting scheme.

Under the Act, importers, exporters and manufacturers are required to report each quarter on the level of imports, exports and manufacture that they conduct. Importers are also required to report on the amount of methyl bromide that has been imported for use for quarantine and pre-shipment uses, and non-quarantine and pre-shipment uses. Additionally, any person that sells methyl bromide must also report that sale to the Australian Department of the Environment and Heritage.

The Department is then able to track the supply and use of methyl bromide to ensure that it is only used for internationally approved purposes.

For synthetic greenhouse gases (SGGs), Australia is obliged to minimise avoidable emissions and track its consumption under the *United Nations Framework Convention of Climate Change*. The Act controls two SGGs, hydrofluorocarbons and perfluorocarbons, by licensing the import, export and manufacture of these substances and requiring reports every three months on amounts imported, exported and manufactured.

ATTACHMENT A

Australian HCFC consumption compared to consumption allowed under the Montreal Protocol

