

HEALTHY SKIES

The Montreal Protocol on Substances that Deplete the Ozone Layer is rightly held up as a model among multilateral environmental agreements. It recognises the principle of common but differentiated responsibility among the countries of the world for tackling the problem of stratospheric ozone depletion, it has a strong financial mechanism to support the work in developing countries, and it has a robust system for compliance and enforcement. Not least, it has proven time and again that issues of technical complexity and political sensitivity can be successfully addressed by a multilateral and collaborative approach.

2005 once again showed that, when put to the test, countries could agree on constructive steps forward. The issue in question was methyl bromide, a significant ozone depleting substance (ODS) widely used by the produce industry to fumigate soil and control pests. Having successfully phased out virtually all use of chlorofluorocarbons (CFCs), which historically were the greatest cause of ozone destruction, developed countries had been struggling to fully phase out methyl bromide by the agreed July 1 2005 deadline, and had been calling for ‘critical use exemptions’.

For only the second time in the Montreal Protocol’s history, an extraordinary Meeting of the Parties (MOP) was held on 1 July to finalize outstanding issues related to exemptions that had not been resolved at the previous regular high-level conference in 2004. During the week-long meeting, countries agreed on further cuts in methyl bromide use. At the subsequent regular MOP of the Montreal Protocol in Dakar, Senegal, in December 2005, further critical use exemptions for methyl bromide were agreed for 2007, providing a 45 per cent reduction from 2006 agreed levels. The clear year-on-year decline demonstrates that governments have the will to collectively address the issue and that farmers and other users are working hard to find replacements to methyl bromide.

The Dakar conference marked the 20th anniversary of the Vienna Convention for the

Protection of the Ozone Layer. At the conference, the Parties agreed to a budget of \$470 million to support the continuing transition by developing countries to CFC-free refrigerators and other ozone-safe technologies between 2006 and 2008. Under the Protocol, developing countries have until 2010 to phase out CFCs and halons and until 2015 to phase out methyl bromide. The agreed funding package will supplement the almost \$2 billion already disbursed since 1990 by the Protocol’s Multilateral Fund on capacity building and ODS phase-out projects.

ACTION ON OZONE

Capacity building for ODS phase-out is the focus of UNEP’s OzonAction Programme. OzonAction helps developing countries and countries with economies in transition to comply with the Montreal Protocol and make informed decisions about alternative technologies and ozone-friendly policies. Primarily funded by the Multilateral Fund of the Montreal Protocol, the programme also receives support from the Global Environment Facility. The OzonAction Programme received high-level recognition in 2005 when it was presented with the US Environmental Protection Agency’s Stratospheric Ozone Protection Award in May. The Agency praised the “leadership and innovation of the OzonAction Programme.” In December, UNEP received a certificate from the President of Senegal on behalf of African countries for its work in support of the Vienna Convention and the Montreal Protocol. As well running the OzonAction Programme, UNEP also hosts the secretariats of the Vienna Convention and the Multilateral Fund of the Montreal Protocol.

A sunbather relaxes on a beach to cool off from the summer heat that rose above 35 degrees Celsius (95 degrees Fahrenheit) as fumes surround the oil terminal of Fos-sur-Mer near Marseille, France, 27 June 2005. Intense summer heat combined with car and industry fumes continues to push air pollution levels beyond safety levels in urban regions of France. © Reuters/Jean-Paul Pelissier



Protecting natural capital

UNEP assists countries through country programmes, institutional strengthening projects, networking, an information clearing-house and Refrigerant Management Plans. These projects and services have built the capacity of more than 140 developing countries to phase out ODS and have brought them into the mainstream of ozone layer protection. Under the Montreal Protocol, developing country parties committed to a 1999 freeze in production and consumption of CFCs, followed by a 50 per cent reduction by 2005 and a complete phase out by 2010. In 2002, countries also had to freeze consumption of halons and methyl bromide. UNEP supports compliance assistance through information exchange and training programmes in refrigerant handling and methyl bromide alternatives; legislation; control and monitoring, particularly of illegal trade, through training of customs officers; development of codes of good practice; national recycling and recovery initiatives; regional networking and harmonization; and awareness raising.

Highlights from 2005 include facilitating the accession of Bhutan to the Vienna Convention and the Montreal Protocol and training focal points to implement ODS phase-out projects. Afghanistan's National Ozone Unit is implementing its institutional strengthening project. In Latin America and the Caribbean, OzonAction continued a wide range of institutional strengthening, refrigerant management and public awareness activities.

In West Asia, UNEP's compliance assistance strategy focused on the need for support to Iraq and Palestine. A number of capacity building and training workshops were also held in the region, including training for customs officers and support to the development of halon banks. Halons play a critical safety role in the airline industry as they are the only effective fire protection option currently available. Due to their destructive effect on the ozone layer, they are scheduled for progressive phase-out under the Montreal Protocol. With restricted halon supply, countries and companies worldwide must engage in 'halon bank management' to better manage remaining stocks. This entails identifying and preserving existing chemicals in cylinders and installed systems and progressively limiting their use to critical applications. In September, a workshop in Manama, Bahrain, considered long-term options for managing dwindling stocks of halons.

A BURNING ISSUE

The strong push to complete the developing country phase out of ozone-depleting substances reflects continued international concern about damage to the stratospheric ozone layer. A new study concluded that, even if the chemical phase-outs agreed under the Montreal Protocol are fully achieved, the ozone layer will not fully recover until 2065—15 years later than previously estimated—due to the continued release of CFCs from old equipment. A depleted ozone layer allows more UV-B radiation to reach the Earth's surface. Risks include more melanoma and non melanoma skin cancers, more eye cataracts, weakened immune systems, reduced plant yields, damage to ocean ecosystems, reduced fisheries yields, adverse effects on animals, and more damage to plastics.

The urgency, and complexity, of action to find environmentally safe alternatives to ODS was further highlighted by a report issued by the Intergovernmental Panel on Climate Change (IPCC) in April. The report revealed that many ozone-friendly substitutes for CFCs contribute to global warming. *Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs)* assesses the implications for climate change of the release of CFCs and their ozone-safe alternatives and proposes solutions that would maintain the momentum of the Montreal Protocol while achieving the targets of Kyoto Protocol, which lists HFCs and PFCs among the greenhouse gases that must be reduced by developed countries by 2012. Taken together, the various solutions identified by the report could cut the global warming contribution of CFCs and their replacements in half by the year 2015.

OzonAction is working with Coca Cola Company, Unilever, McDonald's and Greenpeace to promote voluntary industry actions that address climate change and ozone depletion. Known as Refrigerants Naturally, the partnership is an alliance of the food and drink industry and their suppliers who require point-of-sale cooling technology. Over the past five years the partners and their suppliers have developed, tested and implemented innovative, commercially viable HFC- and CFC-free refrigeration technologies. With UNEP and Greenpeace's encouragement, they are now expanding the initiative to other

multinational corporations to try to shift corporate technology choices towards refrigeration solutions that preserve the bottom line and protect the global commons.

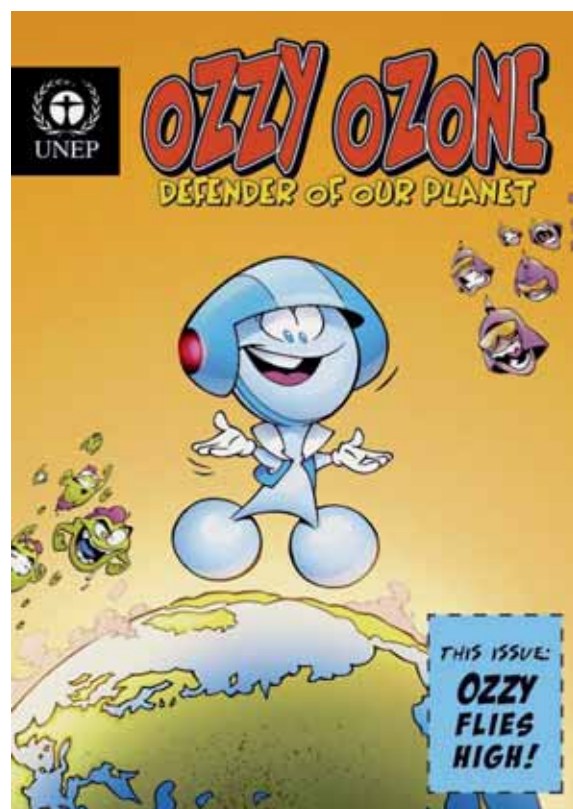
Another initiative focuses on refrigeration of vaccines and foodstuffs where there is no electricity or the supply is unreliable. In these regions refrigeration is often either kerosene- or battery-based solar. A unique public-private-NGO partnership known as SolarChill is developing a climate- and ozone-friendly vaccine cooler that is powered by solar energy and which will directly help improve the health of children in developing countries. The technology is publicly-owned and will be freely available for any company in the world interested in producing SolarChill units.

CLEARING THE AIR

Greenhouse gases and ODS are not the only atmospheric pollutants causing concern. In the Asia-Pacific region UNEP is studying the impacts of aerosol pollution on regional climate, the hydrological cycle, agriculture

and human health. The Atmospheric Brown Cloud project is looking at a three kilometre-deep pollution blanket that forms over parts of the Asian continent during the dry monsoon season. Forest fires, the burning of agricultural wastes, emissions from vehicles, power stations, industries and millions of inefficient cookers burning wood, cow dung and other 'biofuels' form the haze—a mass of ash, acids, aerosols and other particles.

Initial results suggest that the brown haze is reducing the amount of sunlight reaching the Earth's surface by as much as 10 to 15 per cent. It may be affecting monsoon weather patterns, triggering droughts in western parts Asia and increasing flooding in parts of Bangladesh and India. There are also indications that the haze may be reducing winter rice harvests in India by as much as 10 per cent and causing hundreds of thousands of premature deaths due to respiratory diseases. In 2005, UNEP capacity building activities included the establishment of three observatory stations and training programmes for Asian scientists to further study the phenomenon. An impact team was also established to assess the impacts of the atmospheric brown cloud on agriculture, water resources and public health.



UNEP's OzonAction programme has developed an integrated, global awareness package to promote public understanding of the ozone depletion issue through entertaining and educational means. Based on a cartoon character, 'Ozzy Ozone', originally created by the Government of Barbados, the package includes a 9-minute animated video, an illustrated *Ozzy Ozone, Defender of Our Planet* comic booklet, public service announcements for TV, radio spots and a website for children (www.ozzyozone.org). The video has been broadcast in more than 63 countries and showcased on in-flight entertainment on a number of airlines, including Air Portugal, Air India, Air Mauritius and BWIA West Indies Airlines.