centrum

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Welcome

Marco González, Executive Secretary, Ozone Secretariat

Introduction to *Centrum*

The launch of *Centrum* in 2008 was the first initiative by the Ozone Secretariat to provide a forum for the discussion and sharing of ideas by Parties to the Protocol and other ozone protection stakeholders where synergies between multilateral environmental agreements could be identified at an early stage. As such, we are pleased now to share with you the second edition, which contains articles from a wide range of contributors.

This edition comes at a time when further steps taken by the Parties to develop interlinkages with other multilateral environmental agreements are coming to fruition. We welcome all the initiatives being taken to harmonize actions under the Protocol with other international agreements and are committed to continuing to make every effort possible to enhance the synergies that can result from the efficient coordination and harmonization of efforts, among sometimes overlapping mandates.

Consideration of the Protocol's benefits in protecting the climate has been an important focus for the Parties in recent years. In connection with the 2007 adjustment to accelerate the phase-out of HCFCs (decision XIX/6), the Parties agreed that priority should be accorded to cost-effective projects and programmes that focused on, among other things, substitutes and alternatives that minimized other impacts on the environment, including on the climate, taking into account global-warming potential, energy use and other relevant factors.

Since 2007, the focus on climate co-benefits has increased, and the Parties' keenness to support climate issues can be seen clearly in decisions XX/7 and XX/8, which called for strengthened cooperation between the ozone and climate communities. These decisions specifically requested the Secretariat to organize two workshops this year, one on the management and destruction of ozone-depleting substance banks and implications for climate change and the other for an open-ended dialogue on high global-warming-potential alternatives to ozone-depleting substances. Both workshops are to be held immediately prior to the twenty-ninth meeting of the Open-ended Working Group, to take place in Geneva this month.

To enable the participation of some key experts from developing countries in the workshops, the Government of Sweden provided additional funds. We wish to recognize with appreciation that contribution. We have also invited representatives from the secretariats of other relevant multilateral environmental agreements, such as the Basel Convention, Rotterdam Convention and the United Nations Framework Convention on Climate Change, in addition to the Strategic Approach to International Chemicals Management and other stakeholders, to attend and contribute to the discussions during the workshops. The outcomes will be presented to the Parties at the meeting of the Open-ended Working Group, forming the basis for related discussions. Any recommendations that may emerge from these discussions would be forwarded for the consideration

of and possible action by the Parties at their Twenty-First Meeting, to be held in Egypt in November.

In the numerous ozone and climate meetings, including informal discussions, various options for controlling high global-warming-potential gases, particularly HFCs, have been suggested. One of those – regulating HFCs under the Protocol – has now come forward as a proposal to amend the Protocol for consideration by the Parties. This was already discussed during the meetings on climate change held in Bonn, Germany, in June, and the Parties will also review it at their meetings this year.

This second edition of *Centrum* includes articles from Parties and other Protocol partners. Specifically, we are pleased to present contributions from Argentina, Japan, Mexico, the Niger, the former Yugoslav Republic of Macedonia and the United Republic of Tanzania, in addition to the Global Environment Facility and the Chicago Climate Exchange.

We would like to express our thanks once again to all contributors. We hope that you find this edition valuable and informative and, as always, we look forward to your comments.

The Montreal Protocol: HCFCs and HFCs

Dr. Laura Berón, OPROZ Coordinator, Environment and Sustainable Development Secretariat, Argentina

The Montreal Protocol is considered the most successful Multilateral Environmental Agreement implemented to date. By the end of this year, the majority of the most potent ODSs will be phased out globally. There are many reasons for this success:

The Multilateral Fund of the Montreal Protocol, which is lead by the Executive Committee with balanced developing and developed country membership, has established a set of all-embracing regulatory procedures for project preparation, approval, implementation and performance monitoring.

The types of support provided by the Multilateral Fund has helped enable successful implementation:

1. building capacity. One of the outstanding accomplishments of the MPMF was to create and support the work of National Ozone Units in each country. This action provided an assurance that work was going to be done without diluting responsibilities in governmental organizations.
2. technical assistance received from implementing agencies and international and national experts made possible smooth transfer and adaptation of new technologies.
3. technologies provided were the best available and most appropriate, which has not always been the case within North-South cooperation.
4. the possibility to share experiences with developed countries upgraded the knowledge of developing countries.

The above support enabled most countries to comply with MP control measures with substantially reduced costs for their industrial, agricultural or service sectors. It also provided recipient enterprises with improved quality production or service skills. Providing such support to tackle global environmental challenges, in developing countries is of outmost importance since poorer economies often do not have environment issues high in their agenda.

Another important achievement is that MLF allowed countries to address also the very small enterprises, which usually is very difficult to do.

While the achievements noted above have benefited from the support that was provided through the Multilateral Fund, the Parties also benefited from the assistance of technical committees assured a mature negotiation scenario at the Meeting of the Parties, Open Ended Working Group and the Executive Committee.

The past success of the Protocol has moved the Parties to take on new challenges. When all of us thought that most of our responsibilities were over, in 2007, on occasion of celebrating the Protocol's 20th Anniversary, a new adjustment was approved by the Parties which may present one of the biggest challenges experienced by the ozone community up to date. Specifically, the accelerated HCFC phase out that was agreed in 2007 will require substantial financial, technical and human resources.

Once more in November 2008, Parties demonstrated their commitment to both protection of the ozone layer and also the mitigation of climate change. When we met in Doha for negotiating the 2009 – 2011 MLF replenishment, I do not think most of us expected that new obligations were going to be assumed by the international community. Once more, however, the Parties demonstrated in a very difficult global economical situation that they were really committed to do their best for the ozone layer and additionally to climate change. As a result, a new replenishment was approved at the same historical levels.

Now, big challenges are ahead of us, and many important issues still have to be resolved, some of the most important ones include cut off date to determine elegibility, 2nd conversion for enterprises which have already received assistance from the MLF for changing to HCFCs, and achieving the HCFC phaseout through the deployment of commercially widely available, economic, mature and environmentally friendly alternatives.

The Decision approving the HCFCs accelerated phase out asked the Parties for the first time to consider a wider range of environmental impacts when choosing and approving technologies; mainly GWP, energy efficiency and other factors where to be considered. The main challenge presented by this new set of considerations is that for many uses, many of the most effective alternatives currently available, which are also those that were adopted by developed countries (mostly HFCs) have high GWP. Because of the pattern of HCFC consumption in countries like Argentina, if they were not allowed to convert the refrigeration sector to these high GWP alternatives, this could leave the countries without possibilities of complying with the freeze by 2013 and the 10% reduction by 2015.

Argentina for example, being one of the countries more affected by the ozone layer's hole, took a very proactive approach since the beginning of the MP striving at the same time to adopt climate friendly technologies, which was really very hard at that time. Some of the technologies such as LCD foam blowing were not still sufficiently mature and it took around 6 years to convert six plants to this technology. We were successful because there was a lot of input in human resources from each company. In the same way, most of the big or big to medium enterprises in the foam sector were converted to HC. Therefore, only SMEs were converted to HCFC technologies, for which there are only not very mature low GWP alternatives available.

An additionally challenge is faced by Low Volume Consuming Countries, which will have to reduce consumption solely through reductions in the servicing sector. Finally, a new challenge that we will all face will be the impact of the economic crisis. This crisis is likely to lead to the establishment of misleadingly low HCFC baselines (2009-2010), making compliance after this downturn more difficult.

Another important issue that was considered by the Parties and is now being considered by the Executive Committee involves funding for the conversion of plants that had originally converted to HCFCs with Multilateral Fund support. This issue will be critical for the ability of many Article 5 Parties to meet the new Protocol HCFC targets.

A very important new international scenario is now governing MP on the initiative of several Parties. The international community has committed itself to try to maximize the benefits not only for the ozone layer but for climate change too, which will reinforce what is worldwide recognized, i.e. the MP has been the most efficient climate change protocol up to now.

Scientific studies have demonstrated that the impact on climate change of the acceleration of this phase out, will equal the impact of the first phase of Kyoto's Protocol.

I hope the challenges ahead, once more will benefit from the excellent negotiating spirit that has always lead the MP family. We don't have to loose the opportunity of taking advantage of all the experience gained, and keep it alive to help solve other environmental issues such as climate change. Strengthening the Montreal Protocol by accelerating the HCFC phase-out will further delay climate impacts, give the world much-needed time to negotiate the post-Kyoto climate treaty.

Synergy among the Ozone Layer, Climate Change and Biodiversity

Mr. Masayoshi Mizuno, Director of Global Environment Division, Ministry of Foreign Affairs, Japan

For over twenty years the Montreal Protocol has succeeded in protecting and conserving the ozone layer. However the world continues to face emerging global environmental challenges and we must persist in our endeavors to preserve this only one earth. Many of these new challenges are interlinked and increasingly require more comprehensive and congruent approaches by multiple organizations. The Montreal Protocol continues to be a pioneer among multilateral environmental agreements that other agreements try to emulate. However, it is my position that the Protocol must adapt to ever-changing situations and constantly reassess the expectations and needs of the global community.

One recent challenge which requires a comprehensive approach is the use of high global warming substances as alternatives to ozone depleting substances (ODS). The Montreal Protocol recently succeeded in accelerating the phase out of HCFC and consequently encouraged parties to substitute it with non-ozone depleting substances, in particular those using HFCs. These substances are not controlled by the Montreal Protocol but are regulated under the Kyoto Protocol because of their high global warming potential. This is an illustrative example of how a good solution to one problem can exacerbate problems in other areas. Thus the need to address HFCs under the Montreal Protocol should be recognized, and responsibility for its solution should not be left exclusively to the Kyoto Protocol merely because these alternatives have no ozone depleting effects.

Another causal link between different global environment areas can be seen in the devastating effects of global warming on the ecosystem and biodiversity. Climate change is believed to be one of the major reasons for the loss of biodiversity. For example, global warming will move the front line of many species' habitats further north and cause detrimental changes to ecosystems that had hereto been preserved in a very delicate balance. Unless we prevent or mitigate climate change, we will need to expend greater resources in the long run to conserve or restore the habitat of many species. In other words, success in protecting the environment from one threat could depend in part on actions taken in other areas of environmental concern.

Recent situations as described above indicate that the global environment can no longer be addressed by a single protocol or organization. The fact that decisions under one protocol could unintentionally affect the success of another protocol means that we need to adopt a new understanding of how synergy can be enhanced among agreements. The word synergy has in most cases been referred to as an initiative to ensure effective use of resources in secretariats or meetings,

through the common use of available resources or avoidance of duplications. It is my position that we should focus our attention on the policy side of synergy in order to best address cross cutting global environmental issues. With this understanding in mind, the parties to the Montreal Protocol should ask what considerations should be given to its future course of action.

First, as a pioneer of global environmental initiatives, the Montreal Protocol should show leadership in guiding other protocols and organizations. If it can provide an example of the benefits of enhancing synergy at the policy level, it will remain the leading protocol in the global effort to protect the environment.

Second, the Montreal Protocol needs to adjust its activities and give deliberate consideration to the effects of its decisions on other areas of environmental concern, especially now that its direct influence on climate change becomes more conspicuous. In addition, taking global warming into account in decisions made under the Protocol will also aid in minimizing the damage to ecosystems.

Third, in choosing alternatives to fluoride gases such as HCFC it should be recommended that we choose to use alternatives with low global warming effects rather than those with higher warming effects such as HFCs. That said we are well aware that technological difficulty still exists in using alternatives with low global warming effects, such as substances recently developed which use of CO2 or HC, especially in the air-conditioning sector. Additional costs for using these substances would need to be considered as well.

Despite possible difficulties, it is my hope that the Montreal Protocol Parties will explore this course of action and lead the way in this approach to enhance synergy at the policy level. For further detail in addressing actual difficulties, myself and my colleagues in the Japanese government are ready to work with all Parties to the Montreal Protocol as well as Parties to other protocols.

Synergies between multilateral environmental agreements

Mr. Marin Kocov, Manager of the Ozone Unit, The former Yugoslav Republic of Macedonia

Successful chemicals management in The former Yugoslav Republic of Macedonia began in 1996 with development of a country programme to phase out substances that deplete the ozone layer. Following the Multilateral Fund for the Implementation of the Montreal Protocol recipe, which consists of establishing a core body to coordinate overall national activities related to the phase-out of ozone-depleting substances, the Ministry of Environment and Physical Planning set up an ozone unit in February 1997. Twelve years later, the unit has led to consumption of all ozone-depleting substances in the country being reduced by over 98 per cent.

In the light of the goal agreed upon at the 2002 Johannesburg World Summit on Sustainable Development – that, by the year 2020, chemicals are produced and used in ways that minimize significant adverse impacts on the environment and human health – chemicals treaties came to the forefront of the global agenda at the beginning of the twenty-first century. In early 2005, the former Yugoslav Republic of Macedonia was among those countries that prepared a Stockholm Convention on Persistent Organic Pollutants national implementation plan on the reduction and elimination of persistent organic pollutants. The Montreal Protocol approach, whereby a strategic document was developed to describe the main national action to manage a particular chemicals group, was used in that preparation. The plan produced specific projects that resulted in the

elimination of equipment and oils containing polychlorinated biphenyls. It must be stressed that the elimination of hexachlorocyclohexane was also included in the plan, providing a chance to undertake mutual action under the Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Persistent Organic Pollutants. The plan serves as an excellent basis for the further phase-out of hexachlorocyclohexane isomers and for solving one of the crucial environmental problems afflicting the country – the lindane hot spot within the nation's largest chemical company, OHIS.

With a view to making use of the ozone unit's experience and achievements, the Ministry of Environment and Physical Planning created a persistent organic pollutants unit under the umbrella of the Division on Chemicals and Industrial Accidents, with both project units sharing the same project manager. The excellent results obtained included mutual action on the elimination of substances listed under the Stockholm Convention. The ozone unit's experiences have been used in the implementation of investment projects for detection, labelling, storage, transport and final elimination of industrial persistent organic pollutants. In terms of legal measures, a permit system was established to control polychlorinated biphenyls and other persistent organic pollutants and Customs officers at border entry points were trained in controlling such pollutants, leading to excellent results in terms of Stockholm Convention implementation. Experienced colleagues from the Division for Waste Management worked together with representatives of the unit to comply with the provisions of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, which pertained to the transboundary movement of polychlorinated-biphenyl waste and its final destruction in Switzerland.

An aggressive campaign for professionals and service technicians directly involved in this field that resulted in the recovery and recycling of more than 45 tonnes of ozone-depleting substances was extended to professionals handling equipment containing polychlorinated biphenyls. Manuals and handbooks were published to make the issues of relevance and familiar to those workers who directly contributed to protecting the environment from the adverse effects of hazardous chemicals.

It is extremely important to draw attention to awareness-raising activities related to the Montreal Protocol and the Stockholm Convention. These came in two stages: the first saw training provided for professionals with a direct involvement in the field, while the second related to introducing the general public to the issue. Thematic brochures with clear appeals to the public to protect the ozone layer and environment were published and forums, seminars and presentations for all ages were organized with the same purpose, intending not only to introduce the public to the issue, but also to encourage involvement in national action to protect the environment.

In 2008, the groundwork was laid for the implementation of an initiative covering most aspects of the overall chemical life cycle. The Strategic Approach to International Chemicals Management/Quick Start Programme project, on mainstreaming considerations pertaining to the sound management of chemicals into national development planning based on attaining the Millennium Development Goals, represented an excellent opportunity to integrate all experience acquired into the establishment of a national system for chemicals management. The main outcome of the project will be a national plan for the implementation of the Strategic Approach containing a national situation report and initial national chemical profile, national priorities in terms of chemicals management and an action plan. The project follows strictly the integrated approach principle, whereby a steering committee is established, its membership comprising all institutions involved (Ministry of Environment and Physical Planning, Ministry of Health, Ministry of Agriculture, Ministry of Transport and Communications, Ministry of Finance, Customs Administration and non-governmental organizations), together with working groups on the development of the national plan involving all relevant stakeholders (including industry, academic

institutions and public enterprises). It is foreseen that, in the final phase of preparation, national plan outlines will be mainstreamed into national planning documents, meaning that all experience, data and information gathered will be built into national development policy.

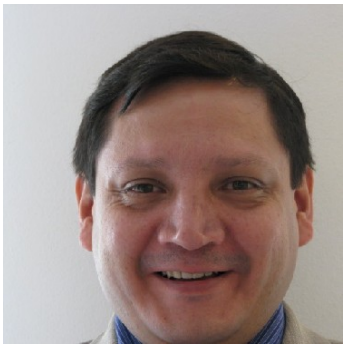
There is a general sense that the country has already taken the correct steps: there are strategic documents on the environmentally sound management of two groups of hazardous chemicals (ozone-depleting substances and persistent organic pollutants), consumption of chlorofluorocarbons stands at zero, action on the accelerated phase-out of hydrochlorofluorocarbons has begun, over 30 tonnes of equipment and oils contaminated with polychlorinated biphenyls and some 4 tonnes of hazardous substances (DDT, methyl bromide and Zyklon B) have been destroyed and action will soon be taken regarding the disposal of 35.000 tonnes of alpha-, beta- and delta-hexachlorocyclohexane isomers.

The former Yugoslav Republic of Macedonia is forging synergies in the implementation of the multilateral environmental agreements governing chemicals. The strong cooperation between and mutual action by the ozone and persistent organic pollutants units is a unique example of how to share the Montreal Protocol experience to realize the provisions of other chemicals treaties, as the Protocol model served as the starting point in the creation of an overall approach to implementing the Stockholm Convention.

The country has seen remarkable success in the implementation of the Protocol. That consumption of ozone-depleting substances has been reduced by some 99 per cent over the past years demonstrates the success of the country's efforts. The same direction will therefore be taken to provide an adequate system for chemicals management in the country. In the former Yugoslav Republic of Macedonia, an integrated approach and synergies have combined successfully to make for the healthy, safe and environmentally sound management of hazardous chemicals.

Fridge and Air Conditioner Early Retirement Programme in México

Mr. Augustín Sánchez, Coordinator, Ozone Protection Unit, General Directorate for Air Quality Management, Environment and Natural Resources Secretariat, Mexico



Introduction

This article describes how the refrigerator and air conditioner early retirement programme is driven to reduce the energy consumption in México, and mainly in those economic sectors where the electrical energy is subsidized. This program subsidizes the purchase of energy efficient refrigerator and air-conditioning equipment, and thus reduces the demand for subsidized energy. This sector is targeted due to the high consumption average of related equipment, and the fact that this equipment tends to be old and very inefficient.

In the medium and long term with this project the subsidies due to the energy consumption will be lower, an important population sector will increase the life standards, and the manufacturing sector will maintain or increase their production capacity. Scrapping centres will recover and recycle important parts of the equipments, and finally the refrigerant gases contained in the system will be recovered. Also there is a possibility, depending on the market conditions, to recover the blowing agents from the foams.

It is important to highlight that this project is an energy efficiency project. While the ODS recovery and final disposal is a very important element of additionallity in terms of climate and ozone protection, it is not the main motive in the implementation of this type of project.

Equipment retirement process and management of scrapping centres

Promotion of the early retirement

This programme is a win-win example, once in which all parties have an incentive to participate. The government subsidises the cost of the equipment but deducts more in the subsidy in the electrical energy, the manufacturers and shops increases their activities and incomes (additionally the government gets more incomes through the paid taxes), the scrapping centres receive a payment for receiving the equipment, and also their activities are focused on the recovery of valuable reusable materials. Finally, the users benefit from both the direct subsidy on the purchase of equipment, and through a reduction in the energy bill cost.

The main strength of this programme is the agreement between the government and the manufacturers. If the advance subsidy for the purchase of equipment and the related warrantee are on time, the final users will have certainty on the programme, otherwise the start up of the programme will be in risk and even more it could be cancelled.

Rules and Principles for the management of scrapping centres

The administration of a scrapping centre could be considered as a secondary activity; nevertheless it represents a big factor in the success of the programme. If the fridges and air conditioners are not properly destroyed, mainly the compressors, they would be rehabilitated and make their way into other equipment. In such cases, the target of the reduction in energy consumption would not be achieved.

As a consequence, it is very important to have comprehensive rules of procedure for the scrapping centres, and to verify the strict compliance of those rules. In particular, the delivery of new equipment must be equal to the registry of equipment retired, and the volume of materials recovered gives us a standard of activity of the centre and the number of equipments received and scrapped.

If the reduction of energy consumption is not achieved the programme will be closed in a very short term. This makes the importance of the good management of the scrapping centres is a key issue of the programme.

Refrigerant and blowing agent recovery - market opportunities

As part of the scrapping process, the scrapping centres must have economical incentives to recover properly each of the elements of the equipments. For the aluminium, cooper, iron and other sellable elements, it is easy to understand the recovery process. Even the oil that is recovered can be used as alternative fuel for certain industrial processes. But the recovery of refrigerant gas is difficult to reclaim, due to the low quality of this type of gas. Related equipment have had a long useful life during which they have been serviced several times - and not all of them with good practices in refrigeration. As a result, the recovered gas could be a blend of halogenated gases (mainly CFC and HFC) plus solvents, moisture, acids, metal particles and oil. It is relatively easy to clean the gas from oil, moisture and metal particles, but to separate CFC 12 from HFC 134a is very complicated, and costly, and with this kind of programmes the needs for CFC 12 is each day lower.

The question is what to do with the CFC 12 recovered from the scrapped equipments? As a refrigerant, CFC 12 no longer has a significant market value. On the other hand we have to look into the global warming potential for CFC 12 that is of 12,000 CO2 eq. If this is considered, then the best value for this gas is the certificate of its destruction.

Currently the standards for the disposal of foams is to send them to landfills. Another possibility would be to incinerate the foams in rotary kilns. This type of disposal is not currently applied because the cost is higher than the disposal in landfills, and there is no income for that.

With the possibility of receiving carbon credit for foams destruction, we may look into the isolation of these old equipments. Their foams contain isocianate and CFC 11 as blowing agent, and this gas also has a high global warming potential (7,000 CO2 eq.), however the recovery of CFC 11 from the foams is more expensive and requires a special technology.

The cost of recovery, management, transport and the destruction process of CFCs in a sound environmental manner should be lower than the price of the carbon credit that can be obtained in the voluntary markets (Chicago, California, Europe).

Now the main task in the near future is to develop the guidelines and procedures of the above mentioned activities including destruction of CFC 12 and 11 to submit the destruction certificates into the voluntary markets.

In conclusion, the refrigerator and air conditioner early retirement programme is driven by the energy efficiency goals, and it has social, economical and environmental benefits, including the reduction of the public budget for subsidies for energy costs, technology improvement, increased economic activity in the manufacturer and service sectors, and the development of a new market opportunity with the scrapping centres. In addition, there is an increase of life standards of the low income population sectors and the achievement of environmental protection goals through the recovering and reusing of different materials and the avoidance of the release of greenhouse gases that also deplete the ozone layer. We would be glad to share our experience further to enable consideration in other countries, and to facilitate the global reduction of energy consumption with all the benefits that it implies for the health of our planet.

Workshop on capacity-building for African negotiators on climate change, Niger, 16–18 March 2009

H.E. Mr. Issouf Baco, Minister of the Environment and Desertification Control of the Niger, Niger

The linkages between ozone protection and climate change have long been recognized. Parties to both the Montreal and Kyoto protocols are now even more cognizant of this linkage when taking decisions. In 2007, Parties to the Montreal Protocol agreed to accelerate the phase-out schedule of HCFCs, bearing in mind the dual benefits to ozone protection and climate change. That decision was followed by two more in 2008 that aimed at further establishing synergies and encouraging initiatives that would benefit the two protocols.

In preparation for the fifteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, scheduled for December 2009 in Copenhagen, where negotiations will take place on post-2012 agreements to reduce greenhouse gas

emissions, the Niger decided to organize a workshop on capacity-building for African negotiators on climate change that involved national ozone officers. Its aim was for African countries to have a greater impact at the negotiations and for their concerns to enjoy a better reception in international forums, particularly on climate change.

The workshop brought together climate and ozone focal points to exchange views on, among other things, the continuing negotiations on the international post-2012 Kyoto regime and cross-cutting matters related to climate and ozone, in particular, alternatives for substances controlled under the Montreal Protocol with high global-warming potential (HCFCs, HFCs, SF_6 and PFCs). The workshop also served as good preparation for the Montreal Protocol workshop on 14 July 2009, at which Parties will discuss high global-warming-potential alternatives to ozone-depleting substances.

Participants made a number of recommendations to the Government of the Niger, agencies and secretariats of multilateral environmental agreements that I support.

I therefore strongly encourage the Ozone Secretariat, the secretariat of the United Nations Framework Convention on Climate Change and other agencies involved in the consultations on the strategic environmental management and destruction of banks of ozone-depleting substances and their impacts on climate change, a workshop on which is to be held on 13 July 2009 in Geneva:

- To establish the link between climate change and the depletion of the ozone layer, in relation to the accelerated phase-out of HCFCs in the West African subregion.
- To build upon experience of eliminating ozone-depleting substances in countries operating under paragraph 1 of Article 5 with a view to further reducing greenhouse gas emissions.
- To strengthen synergies between the climate and ozone agreements by encouraging initiatives to promote the use of combined financing from the Multilateral Fund for the Implementation of the Montreal Protocol and the Clean Development Mechanism.
- To take into consideration the protection of the ozone layer in the climate negotiations, bearing in mind the Montreal Protocol's positive impact on climate change.
- To encourage joint funding through existing financial mechanisms, in particular, the Global Environment Facility, the Multilateral Fund and the various adaptation funds.
- To build the capacity of climate and ozone focal points in the context of subregional economic integration organizations and existing focal point networks such as the Ozone Officers Network for Africa. Accordingly, the Ozone and Climate Change secretariats should examine the ways and means to establish a working group on cross-cutting issues for substances regulated by the Montreal Protocol with high global-warming potential.

In addition to matters related to climate and the ozone layer, participants made recommendations pertaining to the current negotiations on climate change:

- They supported the Cotonou Declaration and the Algiers Platform on Climate Change in Africa elaborated during the meetings held in 2008 in those cities.

- They requested the African group to make representations to the secretariat of the United Nations Framework Convention on Climate Change regarding the establishment of a working group to consider an adaptation protocol.
- They proposed the establishment of an African adaptation fund, to be supported by the African Union.

They requested me, in my capacity as the Minister of Environment and Desertification Control of the Niger, to convey by the most appropriate means the conclusions of the workshop to the Permanent Interstate Committee for Drought Control in the Sahel and the Economic Community of West African States. It is hoped that this will further assist in attaining the workshop's goals.

The consideration and implementation of the above-mentioned outcomes could contribute to meeting the challenge of managing alternatives to ozone-depleting substances that have negative effects on the climate.

Potential Synergies for Ozone and Climate Protection at the National Level: The Experience of Tanzania

H.E. Dr. Batilda S. Burian, Minister of State – Environment, Vice President's Office, United Republic of Tanzania

Background

Ozone layer depletion and climate change are some of the major global environmental threats that we are facing today. The most obvious linkage between ozone layer depletion and climate change is the fact that some ozone depleting substances (ODS) particularly CFCs and their replacements especially HCFCs and HFCs are greenhouse gases (GHGs). The decision by the Parties to the Montreal Protocol in 2007 to accelerate the phase-out of HCFCs has once again reinforced the Protocol's role model and success amongst MEAs through this historic initiative in addressing both ozone layer and climate protection by ensuring that substitutes and alternatives to HCFCs minimize impact to the climate.

National efforts on climate change

Since the emergence of climate change as a global challenge and the coming into force of the UNFCCC, Tanzania has made a number of efforts aiming at contributing to the international efforts to address the problem. These include preparation of the National Adaptation Programme of Action (NAPA) in which priority areas/projects for funding are identified; carrying out an in-depth analysis of climate change impacts on agriculture, health and water sectors as a compliment to NAPA; undertaking a national capacity self assessment which identifies capacity gaps in implementing MEAs and developing an Action Plan; undertaking inventory of the sources and sinks of greenhouse gases; assessment of Technological and other options for the mitigation of GHGs; assessment of vulnerability and adaptation to climate change impacts; climate change technological needs assessment; and preparation of Clean Development Mechanism (CDM) Investor's Guide and booklet.

Efforts to Phase-out ODS

Phasing out ozone-depleting substances has been done in Tanzania in accordance to the control schedule specified in the Montreal Protocol. The 50% and 85% reductions in 2005 and 2007,

respectively, of its CFC baseline consumption (254 metric tonnes) were achieved. Activities that have contributed to this achievement include conversion from CFC to CFC-free technology in 3 manufacturing industries (aerosol and foam sectors); awareness raising on the Montreal Protocol and the adverse effects of ozone depleting substances and available alternatives; and enactment of the Environmental Management (Control of ODS) Regulations. Other activities are training of refrigeration technicians and Custom Officers; procurement and distribution of ODS identifiers to the entry points; procurement and distribution of recovery machines and establishment of recovery and recycling units; and the establishment of the recovery and recycling centre at the Cleaner Production Centre of Tanzania (CPCT).

Lessons and national experience

High-level institutional coordination is a prerequisite for implementation and compliance with Multilateral Environmental Agreements (MEAs). The Division of Environment in the Vice President's Office serves as the National Focal Point for both Montreal Protocol and the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, thus providing a high-level coordination platform. There is also a Cabinet Committee on Environment, chaired by the Vice President of the United Republic of Tanzania, which has raised political profile, offered continued coordination and momentum and ideal machinery for addressing multiple environmental challenges.

The major lessons and experience in implementation of ozone protection and climate change agreements as well as other environmental programmes from the Tanzanian perspective include the establishment of multi-sectoral steering committees, technical committees and consultative meetings from different government ministries and institutions, NGOs and the private sector. Other key lessons include:

- Technology transfer is one of the determining factors for success in the implementation of the Montreal Protocol and will be a critical component in climate protection in order to realize significant GHG emissions reduction.

- Capacity building in enforcement of environmental legal obligations should be continuous and a long-term commitment.

- Mainstreaming environment in national strategy for growth and reduction of poverty is a strong premium on interaction between various economic sectors and the involvement of environmental interest groups.

- Resource allocation and political will towards environmental management are important components in the implementation of international agreements on environment.

- Linking environment to economic and social realities gets the needed attention and can be achieved by the establishment of information, education and communication units in Government Ministries.

- Public awareness and education on climate change and ozone protection has been achieved through mass media, workshops and seminars.

Challenges

Some of the challenges in enhancing synergies between ozone and climate protection include putting in place mitigation efforts which have climate benefits and synergy with ozone protection;

climate change challenges that overwhelm available financial, technological, technical and other forms of capacities; low level of awareness on the importance of synergies and linkages within the various sectors and stakeholders; many and varied MEAs decisions and separate reporting requirements for the various Conventions; capacity building at both national and local government levels; declining financial support from UN agencies and development partners , increased imports of CFC products, such as refrigerators, from countries that have already adopted ozone-friendly products might increase the demand for CFCs for maintenance of these products; illegal trade due to the fact that many CFC-dependent refrigerators, automobile air conditioners, and other equipment are still in service; and alternatives are more expensive than ODS.

Conclusion

Synergies and linkages between ozone and climate protection offer an opportunity for better environmental management, efficient use of resources, improved adoption of cleaner technologies which use less energy and are efficient, reduced vulnerability and enhance ability to adapt to ozone layer depletion and climate change and therefore combating poverty and improving standard of living. Opportunities at the national level are numerous but more needs to be done to bridge the gap between international commitments and implementation on the ground. We should remind ourselves that “coming together is a beginning, keeping together is progress and working together is success”.

The Global Environment Facility and the Montreal Protocol

Ms. Monique Barbut, Global Environment Facility CEO and Chairperson

The Global Environment Facility (GEF) has had a strong partnership with the Parties to the Montreal Protocol since its inception. Indeed, since its formation in 1991, despite the absence of a formal agreement with the Parties to the Montreal Protocol, the GEF has included an ozone focal area. In an effort to ensure complementarity rather than overlapping assistance, the work of the GEF and its agency partners has focused on countries and activities that would not be eligible for funding under the Multilateral Fund. This has resulted in the bulk of the GEF ozone work being done in countries with economies in transition. Specifically, the work of the GEF over the past 17 years has helped 18 countries with economies in transition to achieve their compliance obligations under the Montreal Protocol.

Over the years, the work of the GEF in the area of ozone has diminished along with the reclassification of parties and the reduced number of Parties that are now considered to be countries with economies in transition. That does not mean, however, a reduction in the willingness of the GEF to support your critical work, or to support the work of other environmental agreements in a manner that could provide co-benefits to the Montreal Protocol. Indeed, the possibility of synergistic work with the Montreal Protocol, considering in particular the GEF?s responsibility in the focal areas of climate and POPs, has only increased in the last several years.

For example, a number of projects, with co-financing from the Multilateral Fund, have recently been approved or are under development to address the dual and complementary goals of ozone layer protection and climate change mitigation. Projects in support of the environmentally sound disposal of POPs waste, funded by the GEF in support to the implementation of the Stockholm Convention, are assessing how such capacity might be used for ODS destruction.

The GEF will continue to promote such integrated approaches to global environmental problems in order to tap the potential for synergies and ensure that resources and capacity are best utilized.

Indeed, in discussions begun recently for the GEF-5 replenishment (expected to fund 4 years of GEF operations and activities, beginning July 1, 2010 and ending June 30, 2014), participants have already recommended that cross-sectoral approaches be developed further.

Every four years, the GEF enters into a replenishment discussion with its significant donors. These discussions were launched in November 2008. It is our expectation that an agreement on commitments for the 5th replenishment will be finalized by June 30, 2010, the date on which activities under the 4th GEF replenishment are scheduled to end. The first replenishment meeting was recently held in Paris 17-18 March 2009. A second meeting is planned in Washington on 25-26 June 2009, while the last two meetings are proposed for September/October 2009 and January/February 2010.

In addition to deciding on funding commitments, countries also work on a blueprint for how the GEF can best utilize the funds that are committed. In that regard, we welcome input from a variety of sources on matters of critical importance that might be considered for funding. Specifically, and as it relates to the Montreal Protocol, we would welcome input through Council members or country representatives negotiating the replenishment (all of which are Parties to the Montreal Protocol).

We also strive to maintain close contact with the Ozone and Multilateral Fund Secretariat in their roles as spokespersons for the Executive Committee and the Parties to the Montreal Protocol.

The Chicago Climate Exchange (CCX) and credit for ODS destruction

Mr. Stephen McComb, Chicago Climate Exchange

This article focuses on the interaction between the Montreal Protocol and the Kyoto Protocol, and how the rapidly growing carbon trading market can provide incentives for the destruction of ODS.

Generally speaking, the MP places constraints on the production and import of ODS in the countries that ratified it. The MP does not, however, directly address the capture, recycling and destruction of ODS. This is where the carbon market can play an important role.

- The Kyoto Protocol and other voluntary efforts that address GHG have spawned a variety of market mechanisms that compensate entities that reduce or eliminate GHG. Under these mechanisms, entities who develop qualifying GHG mitigation projects can get compensated for reductions achieved by receiving and then selling carbon credits based on the level of GHG weighted emissions those projects avert. Despite the fact that ODS' have radiative forcing effects similar to the other GHGs addressed by the Kyoto Protocol, until recently, there was no mechanism for entities to receive GHG related compensation for ODS destruction. That situation changed, when, in August of 2007, the Chicago Climate Exchange[1] (CCX), spurred on by its members, published a methodology that enables entities to receive and sell CO_2 credits through the capture and destruction of qualifying ODS. The following is a summary of the rationale for the existence of the protocol:ODS, unless destroyed will eventually leak to the atmosphere.
- With no requirement or incentive, almost no destruction occurs at present
- Projects are not eligible in the Kyoto system.

[1] For more information about Chicago Climate Exchange, please visit www.chicagoclimateexchange.com

The CCX, much like the some of the market mechanisms established under the Kyoto Protocol is a compliance program that requires participating entities to achieve emission reductions and provides positive financial incentives to entities to generate credits based on projects that reduce emissions. Whereas in the Kyoto Protocol structure the responsible parties are national governments; in CCX they are primarily corporations. The driving force behind the CCX market is the Member's legally binding commitment to achieve the CCX emission reduction schedule (6% below baseline by 2010).[2] As with the Kyoto system, a compliance option for CCX Members is the development or purchase of project-based offsets generated by qualifying projects.

The following are the key attributes of the CCX ODS destruction protocol:

- Emitting entities must take on the CCX emission reduction commitment
- Third party independent verification and confirmation of the eligible projects is required.
- Offsets are issued for only 75% of the CO_2 benefit achieved by the project.
- All destruction of ODS must be conducted voluntarily and not as a result of any legal requirement.
- To be eligible, ODS that is destroyed must be a specific gas that is phased out of commercial production and not eligible for importation.[3]
- Material must be destroyed at an eligible destruction facility in the U.S. that meets all U.S. EPA regulatory requirements.
- Quantification of destroyed amounts of eligible ODS must be done in accordance with industry best practice.

Whereas the CCX ODS protocol was conceived within the context of projects undertaken in the U.S., recent applications have been made to CCX for the inclusion of projects with ODS sourced internationally. The CCX Offsets Committee determined that projects developed under matching regulatory circumstances as those in the U.S. may be eligible for crediting.

In summary, CCX provides a market incentive for the destruction of ODS. Provided that the ODS in question is phased out of production and not eligible for importation into the country from which the ODS is sourced. Establishing a financial incentive for the recovery and destruction of ODS complements the goals of the MP and provides a low cost compliance option for entities committed to reducing GHG emissions.

Please contact Chicago Climate Exchange at +1-312-554-3350 should you have any questions.

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[2] Depending on the Phase of the CCX program, a Member's baseline may be either year 2000 or the average of 1998-2001.

[3] This does not include materials produced pursuant any Critical Use Exemptions under the Montreal Protocol.

We hope you enjoyed the second edition of the Ozone Secretariat's biannual e-newsletter; comments and suggestions should be sent to ozoneinfo@unep.org

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