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Workshop on management and destruction of ozone-depleting substance banks and implications for climate change
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Report by the Secretariat on the environmentally sound management of banks of ozone-depleting substances

Executive summary[1]

Note by the Secretariat

Background

1. Over the past 20 years the Montreal Protocol on Substances that Deplete the Ozone Layer has reduced the production and consumption of ozone-depleting substances by more than 97 per cent from historic baseline levels. Because most ozone-depleting substances are potent global warming gases, the Protocol has also eliminated at least 11 billion tonnes of carbon dioxide equivalents, making it a significant contributor to efforts to combat climate change.

2. While the Protocol has reduced production and consumption of ozone-depleting substances, such substances have historically been used in various types of user applications such as refrigeration and fire-fighting equipment and foam products currently in use. In addition, many companies and countries hold virgin, recovered, contaminated or confiscated ozone-depleting substances in discrete stockpiles. Together, the total amount of substances contained in existing equipment, products and stockpiles are referred to as "ozone-depleting substance banks". The Protocol does not control ozone-depleting substance banks and, in the absence of legislation or incentives, they are likely to be vented or disposed of with little regard for the consequences for the ozone layer and climate change. Given this context, the Parties to the Montreal Protocol adopted decision XX/7, which called for, among other things, the present study on funding opportunities for the destruction of ozone-depleting-substance banks.

A. Structure of the report

3. The report is divided into five chapters. The first chapter provides background on the issue of ozone-depleting substance banks and includes a brief primer on the carbon markets. The second chapter, the heart of the report, provides an overview of the funding opportunities indentified for the destruction of ozone-depleting substance banks. The third chapter reports on consultations between the Ozone Secretariat and the secretariats of the Strategic Approach to International Chemicals Management, the

1 The full report of the Secretariat can be found in document UNEP/OzL.Pro/Workshop.3/2/Add.1, in English only. The present executive summary has been produced for the information of Parties in the official languages of the United Nations.

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Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Stockholm Convention on Persistent Organic Pollutants and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. The fourth chapter includes an overview of the role that recovery, collection, storage, transport, destruction and supporting activities might play in some sector-specific interventions. The final chapter provides an overview of Parties' destruction-related decisions and information on destruction facilities. Annex I contains a list of approved technologies for ozone-depleting-substance destruction, while annex II contains a map and a table of globally identified ozone-depleting substances and polychlorinated biphenyl destruction facilities.

B. Magnitude of the issue and potential benefits of action

4. A report prepared by the Technology and Economic Assessment Panel as a supplement to the 2005 special report by the Intergovernmental Panel on Climate Change and the Technology and Economic Assessment Panel on safeguarding the ozone layer and the global climate system estimated that in 2002 there were 3.78 million ozone-depletion potential (ODP) tonnes of ozone-depleting substances in banks, an amount more than 55 times larger than total global consumption in 2007. The supplementary report predicted that unless actions were taken the ozone-depletion potential in banks would decline by up to half by 2015. While ozone-depletion potential is obviously critical, in the context of destruction and the steps leading up to destruction (recovery, collection, storage and transport, among other things) it has little meaning, as what one must grapple with is an actual physical quantity of ozone-depleting substances that must be moved, stored and then destroyed. In that regard, the estimated size of the 2002 and 2015 banks amounted to 5.25 million and 4.78 million tonnes, respectively. The report also estimated that in 2002 banks had a global-warming potential of 20.128 billion tonnes of carbon dioxide equivalent and that, unless action were taken, some one-third thereof would have been vented by 2015.

5. As regards ozone-depleting substance banks in Parties operating under paragraph 1 of Article 5, an expert report prepared for the Multilateral Fund for the Implementation of the Montreal Protocol in 2006 (UNEP.OzL.Pro/ExCom/48/42) estimated that in 2010 reachable banks of chlorofluorocarbons (CFCs) would be on the order of 515,000 tonnes. In considering this figure, however, it is useful to note that the amounts recovered in projects financed by the Fund to date have often been far less than the amounts that were believed to be recoverable. For example, the report found that of 4,275 tonnes of CFCs used in refrigerant servicing in 11 countries operating under paragraph 1 of Article 5 only 23 tonnes were recovered. Experience therefore indicates that enhanced action in this area presents both challenges and opportunities. It also suggests that there is a need for thorough consideration of the incentives needed to encourage robust recovery. Lastly, the data showing the quantity of ozone-depleting substances that will be lost in the coming years demonstrate that quick action is desirable.

C. Primer on the carbon market and its relation to ozone-depleting-substance bank management

6. The Kyoto Protocol to the United Nations Framework Convention on Climate Change uses a cap and trade programme that establishes an allowable emissions level – or cap – for each developed country Party. In most cases, those Parties distribute their caps to specific emitters and mandate that no one can emit ozone-depleting substances without emission credits. In addition, the Protocol establishes market-based trading mechanisms designed to enable emitters to trade or sell their excess emissions credits. Because the cost of achieving reductions varies significantly among emitters, the trading of credits can facilitate lower-cost compliance.

7. The Kyoto Protocol established mechanisms to facilitate the trading of credits and enables international emissions trading to count towards compliance. It also created the Clean Development Mechanism, which enables developed country entities to obtain emissions reductions credit for reductions achieved through eligible reduction projects in developing countries. In spite of the global warming benefits of ozone-depleting-substance destruction, the Clean Development Mechanism is not allocating it carbon credits. Among the reasons for this is that the Kyoto Protocol focuses on emissions of greenhouse gases that are not controlled by the Montreal Protocol. In addition, it establishes baselines and targets for gases that do not include ozone-depleting substances. While these factors are important, the Kyoto Protocol provision covering the Clean Development Mechanism does not refer to gases not controlled by the Montreal Protocol and instead refers simply to activities that result in real, measurable and long-term benefits related to the mitigation of climate change, a formulation that arguably encompasses ozone-depleting substance destruction. Still, only the Parties to the Kyoto Protocol can interpret the Protocol definitively and it appears that, unless the Parties to the Protocol explicitly decide

otherwise, ozone-depleting-substance destruction will not be eligible for credit under the Clean Development Mechanism.

8. While the Clean Development Mechanism and the vast majority of the carbon market are designed to support Kyoto Protocol compliance, the carbon markets include some voluntary efforts to demonstrate such things as corporate responsibility or carbon neutrality. The report explores these efforts as possible sources of funding for ozone-depleting substance destruction.

9. Chapter II gives an overview of consultations between the Ozone Secretariat and various entities and of opportunities for funding ozone-depleting substance destruction that were identified during those consultations. The consultations were in the nature of brainstorming sessions, as most entities are not empowered to decide on funding modalities without approval from their governing bodies. If the Parties would like to pursue any of the opportunities discussed, they may therefore wish to consider what further action is appropriate.

I. Consultations with international entities

A. Multilateral Fund for the Implementation of the Montreal Protocol

10. The Multilateral Fund has been integral to the Montreal Protocol's success. In terms of ozone-depleting-substance bank management and destruction, the Fund's mandate stems from various actions of the Parties. Specifically, while amending the Protocol to create the Multilateral Fund with a mandate to "enable compliance", the Parties agreed upon an indicative list of incremental costs, which includes as point (c) (ii) the "[c]ost of collection, management, recycling, and, if cost effective, destruction of ozone-depleting substances". Also relevant is decision IV/11, which called upon the Parties "to facilitate access and transfer of approved destruction technologies in accordance with Article 10 of the Protocol, together with provision for financial support under Article 10 of the Protocol for Parties operating under paragraph 1 of Article 5". Most recently, the Parties adopted decision XX/7, which, among other things, directed the Executive Committee "to consider as a matter of urgency commencing pilot projects that may cover the collection, transport, storage and destruction of ozone-depleting substances".

11. The report reviews the Multilateral Fund's work in this area in the context of three modalities: pilot projects that it was requested to approve; traditional project funding; and the potential for the use of a special facility.

1. Pilot projects

12. In response to decision XX/7 the Executive Committee at its fifty-seventh meeting, in March 2009, approved an initial set of six requests for the preparation of ozone-depleting-substance destruction projects and called for the preparation of guidelines to direct further work in the area. For the requests approved, the relevant implementing agencies of the Fund will work with the approved countries to prepare formal project proposals that provide details on such matters as how the destruction of ozone-depleting substances would be pursued and how much the effort would cost. This process can be expected to take from six months to one year. The final pilot project proposals will then come back to the Committee for approval. Assuming a two-year implementation time frame, the project preparation requests approved by the Committee in March may not yield actual destruction until late 2011 or early 2012.

2. Traditional project funding

13. In addition to funding pilot projects, one option for dealing with ozone-depleting-substance banks could be for the Parties to treat such projects and funding as an agreed incremental cost. While only the Parties can interpret the Protocol, they may wish to consider if the current mandates of the indicative list and decision IV/11 noted above provide sufficient justification for including funding for destruction of ozone-depleting substances within the traditional funding framework of the Multilateral Fund. Given the language of the indicative list, such a consideration could include a finding by the Executive Committee or the Parties of what component of the banks it is now cost-effective to destroy and then a determination by the Executive Committee of the agreed incremental costs for bank management and destruction-related activities. If this avenue were taken, additional projects could move forward in a time frame similar to that discussed above for pilot projects. If, on the other hand, the Parties conclude that the mandate of the Fund in Article 10 (to enable compliance with articles 2A–2E) would require a more substantial change to the Protocol such as an amendment before the Fund could finance projects relating to ozone-depleting substance banks, it could take significantly longer for

projects to commence, as experience shows that the entry into force of amendments to the Protocol typically takes several years;

3. Special facility

14. The notion of creating a special facility under the Multilateral Fund for funding climate co-benefits was discussed by the Executive Committee in 2008, when it decided that $1.2 million repaid to the Fund from an earlier concessional loan project should be considered as additional income that could be used to create a special facility for providing additional project support. Further to that decision, the Committee decided to consider at its fifty-seventh meeting a facility for additional income from loans and other sources to be maintained and the potential uses of those funds. With regard to the $1.2 million, and as a follow-up to the earlier decision, the Fund's report to the Committee at its fifty-seventh meeting on the status of contributions (UNEP/OzL.Pro/ExCom/57/3) included those funds as additional income, which means that they are available to fund unspecified projects pending the Committee's decision as to their use in the facility.

15. Regarding the purpose of the special facility, a document presented at the Committee's fifty-seventh meeting (UNEP/OzL.Pro/ExCom/57/64) suggested that it could be to augment funding to cover non-agreed incremental costs associated with additional environmental benefits not required for compliance with the Montreal Protocol, such as climate benefits. It also discussed using the facility to fund pilot projects, to develop methodologies to mobilize funds from other sources, to hold funds collected from outside public and private sources, to establish closer relations with other funding entities and to seek, house and manage credits from the carbon market. Related discussions will continue at the Committee's next meeting on the basis of a paper to be prepared by the Fund Secretariat.

B. Global Environment Facility

16. The Global Environment Facility (GEF) began operation in 1991 and has since then become the financial mechanism for several multilateral environmental agreements. Potential funding opportunities in this context are found in the GEF focal areas for ozone, climate and chemicals management.

1. Ozone

17. The most recent GEF strategic guidance states that "the GEF's goal … is to assist countries to phase out consumption and production and prevent releases of ODS according to their commitments to Montreal Protocol phase-out schedules, while enabling low-Greenhouse Gas alternative technologies and practices. As a consequence …the GEF will also contribute generally to capacity development for the sound management of chemicals". In translating this broad guidance into practical direction, GEF has historically focused on assisting countries with economies in transition. It is, however, also authorized to fund activities that, while consistent with the Montreal Protocol's objectives, are of a type not covered by the Multilateral Fund. In that regard, the GEF strategic guidance noted that GEF retained "the flexibility to respond to policy evolutions under the Montreal Protocol, for example regarding the destruction of unwanted ODS".

18. GEF is currently in the process of discussing its next replenishment. That exercise, expected to conclude in early 2010, involves both a review of the current ozone focal area strategy and a suggested earmark of funding. If the Parties wish to see GEF support either broad (i.e., by countries with economies in transition and developing countries) or more narrow (i.e., countries with economies in transition only) efforts for ozone-depleting-substance management and destruction activities, they should raise this through their representatives to the replenishment discussions. In the meantime, given the existing strategic guidance, it would appear possible for GEF to entertain initial ozone-depleting-substance destruction project proposals, approval of which would depend on the availability of GEF funds and its willingness.

2. Climate change

19. The GEF climate change programme focuses on activities to catalyse market transformation and to bring about long-term reductions in greenhouse gas emissions, rather than on individual emissions reduction projects. That said, the climate change focal area had included a window for funding short-term response measures to enable near-term, cost-effective reductions in greenhouse gas emissions. That window could possibly be reactivated to enable climate benefits through ozone-depleting-substance destruction. If the Parties wish to see GEF use this window for ozone-depleting-substance destruction, they should so inform it.

20. GEF climate change work also involves the replacement of old, inefficient refrigeration equipment with new, more energy-efficient models. It is possible that already approved GEF projects

could be augmented to include destruction of ozone-depleting substances recovered from retired equipment. New projects of this type could also include such components from the beginning. Parties may wish to raise this issue with GEF.

3. Persistent organic pollutants

21. GEF provides assistance to developing countries and countries with economies in transition to implement their national implementation plans under the Stockholm Convention. Most projects deal with the phase-out and disposal of persistent organic pollutants, persistent organic pollutant waste and waste containing persistent organic pollutants and include removal and transport abroad for disposal and the establishment of infrastructure for collection, temporary storage and, in some cases, disposal of persistent organic pollutant waste. The potential for synergies is extremely high in this area and one GEF project has included an investigation of ozone-depleting-substance disposal. In terms of operationalizing further efforts, GEF (and for that matter the Multilateral Fund) could encourage partner countries to seek opportunities to establish links between related activities. Agencies could also be encouraged to include evidence that such opportunities have been explored as an operational criterion for project approval.

C. World Bank

22. Three possible non-Multilateral Fund opportunities for ozone-depleting-substance destruction were discussed with the World Bank. First, donor trust funds were considered. Such trust funds are accounted for separately from the Bank's own resources. The Bank currently has donor-specific trust funds with environmental components from several countries. In theory, related donors could work with the Bank and potential recipients and agree to use related funding to support ozone-depleting substance destruction projects. Second, Bank experience with mobilizing donor resources to meet specific needs was considered. This type of support was previously used in a $27 million multi-donor effort to address the closure of ozone depleting-substance production facilities in the Russian Federation. This example could be replicated to deal with the issue of ozone-depleting substance destruction. Lastly, the Bank could work through its normal course of business to integrate ozone-depleting substance destruction issues. Specifically, at the country level, the Bank can include ozone-depleting substance destruction in its country assistance strategies and can work with its client countries to integrate chemicals management issues into their poverty reduction strategy papers. This option could be operationalized through discussions between the Bank and its client countries, with or without encouragement from the Parties to the Protocol.

Climate investment funds: Clean Technology Fund and Strategic Climate Fund

23. The Bali Action Plan adopted at the thirteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change includes a call for the comprehensive strengthening of the catalytic role of the Convention regime by, among other things, encouraging multilateral bodies to support adaptation and mitigation in a coherent and integrated way. In response, the World Bank has worked with regional development banks to establish two "climate investment funds" that it hopes will fill an immediate financing gap pending final agreement on the future climate change regime being discussed under the Convention. The Ozone Secretariat was unable to meet the climate investment fund secretariat prior to the finalization of the report. Accordingly, the report includes only background information on the two funds. Any new information that becomes available will be provided in an addendum to the present report.

D. United Nations Development Programme carbon facility

24. At the fifty-seventh meeting of the Executive Committee, the United Nations Development Programme gave a presentation on the strengths and weaknesses of leveraging carbon finance for ozone-depleting substance projects. Overall, the view expressed was that carbon finance was well suited as a funding source for ozone-depleting substance destruction projects but that a considered and phased approach, establishing credibility and sending appropriate signals to the market, would be necessary. UNDP suggested that an interim source of carbon finance could be a fund-based model, which, with an accompanying oversight framework, could potentially finance early ozone-depleting substance destruction projects on a cost-driven basis, in a manner similar to the financing of normal grant-supported Multilateral Fund activities. Projects under this model would comply with accredited methodologies and quantify their climate impact through the generation of ozone-depleting-substance credits. The fund could be held by the Montreal Protocol bodies, possibly the Multilateral Fund Secretariat, or some other relevant organization. By establishing a trusted supply of credits in parallel to the Kyoto Protocol compliance markets' second commitment period, and by giving clear, advance

signals to the markets, the international community would be able to adjust its caps appropriately in preparation for a third Kyoto Protocol commitment period and thereby ensure effective linkage with and sufficient demand from the compliance markets.

E. United Nations Industrial Development Organization

25. The United Nations Industrial Development Organization (UNIDO) noted that, while technologies for the destruction of ozone-depleting substances were available, technical, economic and policy barriers hindered developing countries from establishing and operating systems for the collection, management and disposal of such substances. In seeking financial incentives outside the Multilateral Fund's scope, the Organization is looking to work with countries to establish regulations obliging manufacturers to pay a fee at the point of sale for the eventual disposal of products containing ozone-depleting-substance. These disposal fees would be collected at an entity within the Government that would be responsible for operating a system for the collection and disposal of unwanted ozone-depleting substances. In addition, the Organization is exploring ways to mobilize funds through the use of carbon credits from the voluntary carbon markets and is currently working with experts on developing, validating and registering a methodology.

F. United Nations Framework Convention on Climate Change Clean Development Mechanism

26. As a supplement to achieving direct emission reductions within their own territories, the Kyoto Protocol enables developed country Parties to obtain credit toward meeting their commitments under the Protocol by undertaking emissions reduction projects in developing countries through the Clean Development Mechanism.

27. Discussions with various entities strongly suggested that, unless another intent is expressed by the Kyoto Parties, the Clean Development Mechanism does not currently appear to be a practical option for funding the destruction of ozone-depleting substances. That said, it is possible to broadly estimate the benefits that might accrue if the Parties to the Kyoto Protocol were to permit the Mechanism to issue credits for the destruction of ozone-depleting substances. For example, as CFC-12 has a global-warming potential of 10,720, the destruction of 1 tonne of CFC-12 could generate 10,720 credits. Because the current value of a credit is approximately $10, the destruction of 1 tonne of CFC-12 could generate $107,200. This compares to a destruction cost estimated by the Technology and Economic Assessment Panel of approximately $5,000 per ton. If it were assumed, for the sake of example only, that destruction itself constituted 20 or even 10 per cent of the overall cost of recovery, collection, storage, transport, destruction and supporting activities, funds from the Clean Development Mechanism, could, if permitted, cover all CFC-12 destruction-related costs and provide an incentive for the activity. Given their lower global-warming potentials, hydrochlorofluorocarbons (HCFCs) would mobilize fewer funds.

28. Changing the Clean Development Mechanism coverage through amendment of the Kyoto Protocol could take several years, while changing it through a decision of the Parties would, if permitted, be much speedier. While clearly only the Parties to the Kyoto Protocol can determine what action would be needed to allow the Mechanism to issue credits for the destruction of ozone-depleting substances, any change would have to be followed by numerous time-consuming steps, including the development of related methodologies and approval of projects. This suggests that project approval would lag any decision by at least two years. Lastly, it is important to note that credits are issued and can be monetized only after eligible projects are implemented, so that use of the Mechanism would not obviate the need to mobilize up-front project funding.

G. Voluntary carbon initiatives

1. Chicago Climate Exchange

29. Efforts to address climate change have led to the creation of a variety of voluntary market mechanisms. Voluntary market credits are bought and sold for various reasons, including corporate social responsibility commitments and compliance with non-Kyoto commitments. The Chicago Climate Exchange falls into the latter category, as it requires member entities to commit themselves to reducing greenhouse gas emissions by a specified level. Emissions credits, known as carbon financial instruments, can be used toward satisfying reduction targets or can be sold to others. To date, the Exchange has over 400 members with an aggregate emissions baseline of over 600 million tonnes. The Exchange has an approved programme to provide credit for approved ozone-depleting-substance destruction projects undertaken between 2007 and 2010. The destruction must not have been required

by law and credit can only be given for chemicals that have been subject to a phase-out. The destruction must take place in the United States of America at approved facilities. In terms of the opportunities, assuming that the credits issued by the Exchange are issued for each tonne of carbon dioxide equivalent destroyed, the destruction of 1 tonne of CFC-12 could, given its global warming potential, generate 10,720 carbon financial instruments. As the current value of a credit is approximately $2.15, and the Exchange discounts the allocation of its credits by 25 per cent, the destruction of 1 tonne of CFC-12 could generate as much as $17,286.

2. Voluntary Carbon Standard Association

30. This programme was designed to provide a global standard and institutional structure for validation and verification of voluntary greenhouse gas emission reductions or removals. As at April 2009, the Association was accepting only projects related to the six Kyoto Protocol gases but it is extending the programme to cover ozone-depleting-substance destruction. It expects to finalize eligibility criteria and formally include such destruction at its next release, which is likely to be toward the end of 2009. At that time, the Association would be open to register destruction projects that meet its criteria and use methodologies approved by two independent validators. Theoretically, related projects could be developed, registered and implemented by firms, national entities, agencies or even the Multilateral Fund.

II. Bilateral consultations with national experts

31. To extend the range of financial experts consulted, the Secretariat contacted Parties that have been active in ozone-depleting-substance destruction or bilateral ozone-depleting-substance projects. A review of some of the modalities and opportunities identified is included below.

A. Use of carbon dioxide allowance auction revenues

32. In the context of the European Community climate regime, member States are allocated emissions allowances that they are required to auction. The related legislative mandate states that at least 50 per cent of the auction revenue should be used for mitigating climate change. In discussions with the European Commission, it was noted that member States' use of allowance revenue to fund mitigation could include funding of ozone-depleting-substance destruction activities in developing countries. In terms of operationalizing this opportunity, Parties might consider raising this issue with countries that are auctioning their allowances to see whether a portion of the generated funds can be used for destruction.

B. Producer responsibility programmes

33. Some countries drew attention to their use of producer responsibility programmes in the disposal of ozone-depleting substances and equipment containing such substances. Under these programmes a levy, or licensing fee, is imposed on the bulk import of ozone-depleting substances and equipment containing them and the sum levied is set aside for end-of-useful-life decommissioning and destruction. Such systems can be run as voluntary programmes by non-governmental organizations or be supported by national legislation requiring participation and payment of levies. In terms of operationalizing this opportunity, it is clear that the feasibility of imposing a levy would have to be considered by each Party in the context of its own laws.

C. Including end-of-life disposal fees in the price of new refrigeration equipment

34. Some countries have imposed fees on the sale of refrigeration equipment using ozone-depleting substances and used the resulting funds to cover the cost of collection, recovery and disposal of equipment and the ozone-depleting substances contained therein. These fees can either be imposed by Governments or collected by industry through voluntary programmes. In either case, consumers in effect pay the fees when they purchase the equipment, and the cost of disposal is thereby internalized in the purchase price of the item. This approach would have to be considered on a country-by-country basis.

D. Leveraging the interest of alternative producers to fund ozone-depleting substances destruction

35. Italy drew attention to its successful effort to destroy halons through a combination of national requirements and a voluntary programme run by a producer of halon alternatives. The producer offered

to collect and destroy halons from users committing themselves to using the alternative. As a result, Italy estimated that it was able to recover 80 per cent of its national stock of halons; the sum recovered was either destroyed or exported. An effort to destroy other ozone-depleting substances without the incentive was said to be not as successful, demonstrating the importance of incentives. A similar option reported by China was an fire-extinguisher exchange programme that gave a new, alternative-based extinguisher to those seeking to refill their halon extinguishers. These options depend on an entity willing to provide an effective incentive. In concept, these opportunities could be discussed with alternatives producers to determine whether there is any interest in pursuing this option.

E. Leveraging work done under energy efficiency or related refrigeration equipment exchange programmes to recover and destroy ozone-depleting substances

36. As noted above with regard to GEF, some countries have launched programmes to decommission less efficient refrigerators and air conditioners and replace them with more energy-efficient models to reduce energy use and related carbon dioxide emissions. Because these programmes involve the delivery of old equipment to centralized decommissioning sites, they provide a very good opportunity for cost-effectively recovering and destroying ozone-depleting substances. In terms of operationalizing this option, the Multilateral Fund or some other institutions could consider funding an add-on to national or privately sponsored projects of this nature to ensure that ozone-depleting substances are captured and destroyed in an environmentally sound manner. Furthermore, related funds might be paid back through carbon credits from the voluntary market.

III. Consultations with the secretariats of the Strategic Approach to International Chemicals Management and the Basel, Rotterdam and Stockholm conventions

37. The aim of those consultations was to identify funding opportunities through synergistic actions with other environmental regimes and obtain clarity on any implications that such regimes might have on the management of ozone-depleting-substance banks.

A. Strategic Approach to International Chemicals Management

38. The Strategic Approach to International Chemicals Management is not a legally binding treaty, but rather an international policy framework that aims to achieve the sound management of chemicals throughout their life cycle. Strategic Approach financial arrangements include the Quick Start Programme, which was established to support initial capacity-building and implementation activities. The Quick Start Programme also seeks to enhance synergies with other relevant chemicals and waste multilateral environmental agreements. It consists of a time-limited trust fund in addition to multilateral, bilateral and other forms of cooperation. The Trust Fund provides seed money to support projects through grants limited to $50,000 to $250,000 per project. Approval of projects and dispatch of funding takes place within eight weeks from the project submission date. There appears to be scope for using the Programme for joint purposes pertaining to ozone-depleting substance banks and related matters covered in particular under the Basel and Stockholm Conventions, and proponents may wish to coordinate their proposals with stakeholders working in areas under those conventions, among others.

B. Basel Convention

39. The Basel Convention is an international treaty intended to address adverse effects resulting from the generation, management, transboundary movement and disposal of hazardous wastes and other wastes. This goal is pursued through implementation of a prior informed consent procedure and a number of additional requirements such as minimization of generation and cross-border transport of wastes, in addition to treatment and disposal of wastes as close as possible to their source. The Parties have taken no definitive position on whether the Convention covers the transboundary movement of ozone-depleting-substance wastes. It is therefore generally up to each Party to interpret the Convention’s requirements. Given the characteristics of ozone-depleting substances, however, one interpretation could be that the Convention requirements would apply only to the transboundary movement of ozone-depleting-substance wastes that could be considered to be toxic owing to the presence of methyl bromide or carbon tetrachloride. In addition, it is clear that the Convention requirements would apply to ozone-depleting-substance wastes that are declared to be hazardous by the domestic legislation of a Party of export, import or transit. Projects or initiatives targeting transboundary movements of these types of wastes could be co-funded by the Multilateral Fund and interested

Convention donors. In such cases, the Convention's regional centres might be able to coordinate relevant activities with the regional networks under the Montreal Protocol.

C. Stockholm Convention

40. The Stockholm Convention is a global treaty to protect against the adverse effects of highly dangerous chemicals that persist and bioaccumulate in living organisms. It mandates a set of measures controlling the production, import, export, use and disposal of persistent organic pollutants. Implementation is mainly funded by the Global Environment Facility. In considering co-funding opportunities in areas of common interest, the Convention Secretariat favoured in particular initiatives prioritizing the proper recovery, collection, transport and storage of persistent organic pollutant and ozone-depleting substance stockpiles and wastes. Financial assistance to carry out these types of projects could be sought from both the Multilateral Fund and the Global Environment Facility or the Quick Start Programme.

D. Rotterdam Convention

41. The Rotterdam Convention is an international treaty aimed at protecting human health and the environment from the harmful effects of certain hazardous chemicals, including some pesticides and industrial chemicals. While the Convention's key principles have been successfully applied to the control of trade in ozone-depleting substances by some ozone regional networks, the Convention by its terms does not cover ozone-depleting substances or wastes. Although, during consultations, the Convention Secretariat highlighted the benefits of enhanced cooperation with the Protocol, in particular in the fields of customs officers training and combating illegal trade, co-funding opportunities involving Convention donors for activities directly related to ozone-depleting substance banks could not be identified at this stage.

IV. Overview of interventions available to reduce emissions from ozone-depleting-substance banks

42. This chapter discusses how recovery, collection, storage, transport and destruction fit into ozone-depleting-substance management and destruction efforts in the refrigeration and foam sectors and in the area of stockpiles. It also includes an overview of some of the challenges in these areas. It concludes that, while the stocks of CFCs used in the refrigeration sector are diminishing with the retirement of old equipment, significant opportunities exist for their recovery and destruction. Furthermore, HCFCs used in such equipment will present a long-term opportunity to reduce both ozone and climate effects. Recent efforts to include the recovery of ozone-depleting substances in efforts to increase energy efficiency have enabled more efficient and cost-effective recovery of related ozone-depleting substances. Dealing with ozone-depleting substances that are already in discrete stocks obviates the need for recovery and collection and to the degree that the stocks consist of virgin material, transportation for destruction is much easier. While a large portion of the long-term bank of ozone-depleting substances is in the foams sector, and obtaining foams from household refrigerators may present a feasible option, recovery of ozone-depleting substances from foams is a complex, multi-step process that involves removing CFCs from a solid matrix and the proper use of specialized equipment that can be expensive to purchase and operate. The European Community is currently studying several member States' experience in recovering and destroying ozone-depleting substances.

V. Destruction-related actions of the Parties to the Montreal Protocol

43. Arguably, the Parties' most significant action on destruction was the inclusion of destruction in the definition of production. That act enables Parties to subtract from their level of production (and through it, consumption) the amount destroyed by technologies approved by the Parties. All other actions taken by the Parties on destruction have been in the form of decisions. Notable among them are the inclusion of destruction (if cost-effective) in the indicative list of incremental costs and the provision in decision IV/11 that called upon the Parties "to facilitate access and transfer of approved destruction technologies in accordance with Article 10 of the Protocol". Most recently, the Parties took decision XX/7 which, among other things, called for the initiation of pilot projects. In terms of technical decisions, most pertinent are those that list the coverage of approved destruction technologies (decisions IV/11, V/26, VII/35, XIV/6 and XV/9), that specify good housekeeping procedures for the destruction of ozone-depleting substances (decisions IV/11 and XV/9) and that clarify the destruction efficiency issue (decisions IV/11, XV/10 and XVII/17).

Ozone-depleting-substance destruction facilities

44. In mid-March 2009, the Secretariat wrote to all Parties requesting information on facilities for the destruction of ozone-depleting substances that existed in their countries. Approximately 30 Parties responded to the request for information. Given the incomplete nature of the information received from the Parties, the Secretariat combined that information with information from the ICF International report on destruction case studies produced at the request of the Executive Committee (UNEP/OzL.Pro.WG.1/28/4). While that report also noted that its information was incomplete, it did point out that commercial destruction facilities using Party-approved technologies were operating in 20 countries, had known production capacities of from 40 to 600 metric tonnes per year, and faced destruction costs ranging from $2 to $13/kg destroyed. The report also noted that destruction facilities for polychlorinated biphenyls existed in Brazil, Cameroon, Norway, Mexico and the Republic of Korea and that, with modifications, these facilities might be capable of destroying ozone-depleting substances. An inventory of worldwide polychlorinated-biphenyl destruction capacity published by the Chemicals Branch of the United Nations Environment Programme Division of Technology, Industry and Economics in 2004 reveals that polychlorinated-biphenyl facilities exist in several countries worldwide.